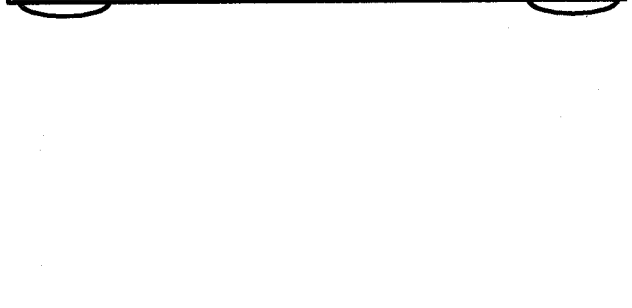
JVC

SERVICE MANUAL

FM/AM RECEIVER

RX-316BK
RX-317TN



COMPU LINK
Remote
Control Component

Area Suffix

C	Canada
J	the U.S.A.
UT	Taiwan
U	Other Area

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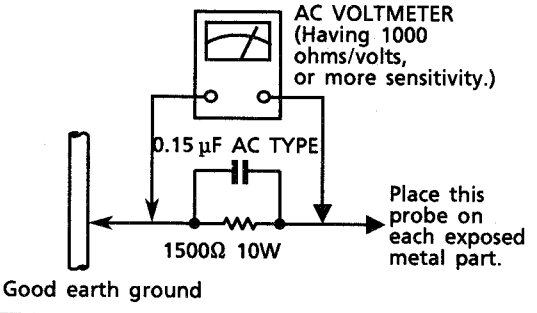
No.20500
Jan. 1995

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute repalcement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, contorl shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10 W resistor paralleled by a 0.15 µF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor.
     Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Troubleshooting

Use this chart to help you solve everyday operational problems. If there is any problem you cannot solve, contact your JVC service center.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Display window does not light up	Power cord not plugged in	Plug power cord into AC socket
No sound from speakers	Speaker wires not connected	Check speaker wiring and reconnect if necessary
	SPEAKERS buttons not set correctly	Push the SPEAKERSbuttons in or out as desired
	Incorrect SOURCE button was pressed	Select the correct audio source
Sound from one speaker only	Speaker wires not connected properly	Check speaker wiring and reconnect if necessary
	Balance control is set to one extreme	Adjust BALANCE control so that both speakers have sound
Continuous hiss or buzzing during FM reception	Incoming signal is too weak	Adjust antenna
	Station is too far away	Select a new station
	Incorrect antenna used	Check with your dealer to be sure you have the correct antenna
	Antenna not connected properly	Check connections
Occasional cracking noise during FM reception	Ignition noise from automobiles	Move the antenna farther from automobile traffic
Howling during record playing	Turntable too close to speaker	Move speakers away from turntable
Remote control does not work	There is an obstruction in front of the REMOTE SENSOR on the receiver	Remove the obstruction
	Batteries are weak	Replace batteries

Introduction

Thank you for purchasing the JVC RX-317TN receiver. We hope it will be a valued addition to your audio system. Be sure to read these instructions carefully before installing and operating the receiver.

Features

- Monitor recording quality
- Surround feature with two or four speakers
- Remote control
- Preset radio stations
- Easy to use

About This Manual

This manual gives you the basic information you need to install and use your receiver. It explains everything you need to know from turning the power switch on to basic troubleshooting. Please consult your JVC dealer if you have further questions about the receiver.

The following conventions are used in this manual:

- Controls, buttons, and connection points on the back of the receiver are indicated with capital letters, like this: POWER button, AUDIO jacks
- Messages that appear on the display window are indicated with capital letters and in quotes, like this: "TUNED"
- Instructions that you need to follow to get the correct results are labeled ***IMPORTANT!***
- Helpful information is labeled *NOTE:*
- To avoid electric shock to yourself or damage to the receiver, read the information labeled ⚠ **CAUTION!**

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RX-316BK
RX-317TN

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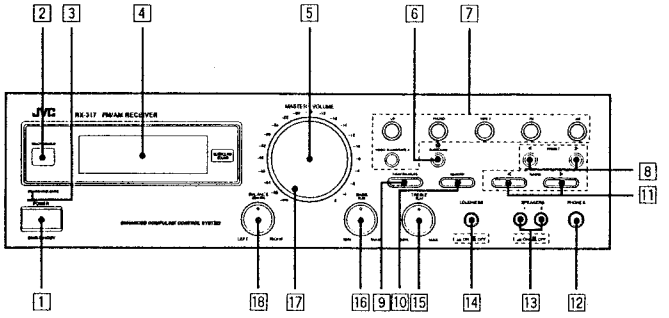
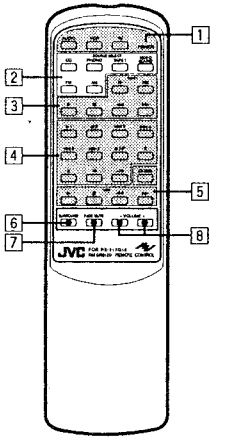
Switches and Controls

Familiarize yourself with the main switches and controls on your JVC RX-317TN receiver.



Receiver

1. ON/STANDBY switch
2. REMOTE SENSOR window
3. STANDBY/RECEIVED indicator
4. Display window
5. MASTER VOLUME control
6. SURROUND button
7. SOURCE SELECT buttons
8. PRESET buttons
9. FM MODE/MUTE button
10. MEMORY button
11. TUNING buttons
12. PHONES jack
13. SPEAKERS buttons
14. LOUDNESS button
15. TREBLE control
16. BASS control
17. MASTER VOLUME indicator
18. BALANCE control



Remote Control

1. POWER switch
   Turns on the Unit or puts it in standby mode
2. SOURCE SELECT buttons
3. TAPE 1 control buttons
4. • Numeric button for only FM/AM
   • Control button for CD and CD Changer
5. VCR control button
6. SURROUND button
7. FADE MUTE button
8. VOLUME adjuster

Installation

This section explains how to connect the receiver to other stereo equipment and speakers, and how to connect the power supply.

⚠ Cautions

Before Installation

⚠ **CAUTION!** Before installing your receiver:

- Make sure your hands are dry.
- Turn the power off to all components.
- Read the installation instructions for all components you are going to connect.

Positioning the Receiver

⚠ **CAUTION!**

- Install the receiver in a location that is level and protected from moisture.
- The temperature around the receiver must be between 23° and 104° F (–5° and 40° C).
- Make sure there is good ventilation around the receiver. Poor ventilation could cause overheating and damage the receiver.

Making Power Connections

⚠ **CAUTION!**

- Do not handle the power cord with wet hands.
- Do not pull on the power cord to unplug the receiver. Always grab the plug directly so as not to damage the cord.

Handling the Receiver

⚠ **CAUTION!**

- Do not insert any metal object into the receiver.
- Do not disassemble the receiver or remove screws, covers, or cabinet.
- Do not expose the receiver to rain or moisture.

Before Starting

Connecting Stereo Components

Before connecting the receiver, read the following paragraphs carefully.

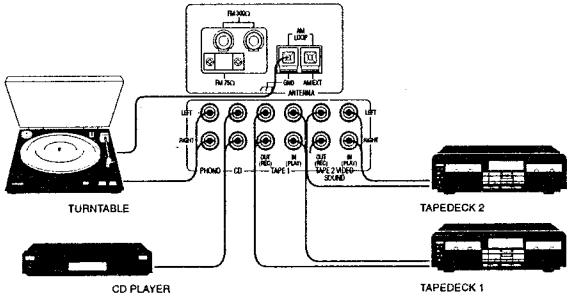
IMPORTANT! *The left channel of any audio component must be connected to the left-channel jack of the receiver, and the right channel to the right-channel jack. If they are reversed, the stereophonic image will not be correct.*

NOTE: To ensure correct connections, insert the red plug into the right channel.

Basic Connections

Connect stereo component to the amplifier using cables with RCA PIN plugs. Connect the output jacks on a tape deck to the jacks marked IN (PLAY) on the amplifier, and the input jacks to those marked OUT (REC).

NOTE: Any turntables incorporating a small-output cartridge such as an MC (moving-coil type) must be connected to this amplifier through a commercial head amplifier or step-up transformer. Direct connection may result in insufficient volume.



NOTE: If a ground cable is fitted to your turntable, connect the ground cable to the AM LOOP terminal marked GND. In this case, do not disconnect the AM LOOP wire from the GND terminal.

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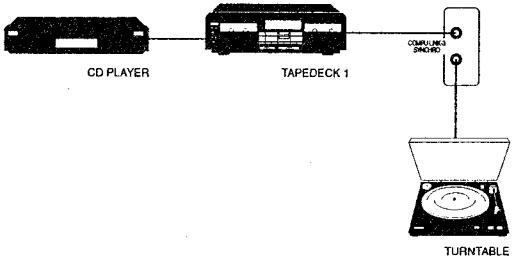
COMPU LINK-3 Connections

COMPU LINK-3 SYNCHRO jacks on the back of the receiver connect the COMPU LINK remote control system. This system connects other JVC audio components with the receiver to make listening and recording more convenient. To use this system, attach the cables provided with your JVC components to the COMPU LINK-3 SYNCHRO jacks on the rear panel of each component. Then connect the cables to the receiver.

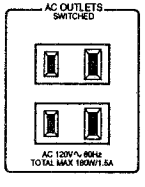
NOTES:

- *COMPU LINK-3 is an upgraded version of COMPU LINK-1. If your equipment provides COMPU LINK-1 jacks, you can still connect your equipment, but slight imperfections may result. Automatic Power ON/OFF, for example, may not always function properly.*
- *Refer to page 17 for details about the COMPU LINK remote control system.*

⚠ **CAUTION!** Do not connect Tape Deck 2 to the COMPU LINK jacks. It may cause the COMPU LINK system to malfunction.



Other Audio Connections



Use the socket on the back of the receiver to connect the power supply of any audio components. By pressing the POWER switch on the remote control, you can turn the receiver, and all connected components, on or off at the same time.

In the United States, AC outlets have a capacity of 180 watts.

⚠ **CAUTION!** Do not connect any components that consume more power than the capacity of the AC outlets. This capacity is indicated below the socket on the back of the receiver.

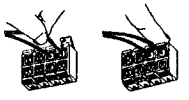
Connecting Speakers

Before Starting

Up to four speakers (two sets) can be connected to the receiver. Connecting four speakers will allow you to use the built-in Surround feature.

Connecting Speakers

Connect speakers to the SPEAKERS terminals on the back of the receiver. Use the wire supplied with the speakers.

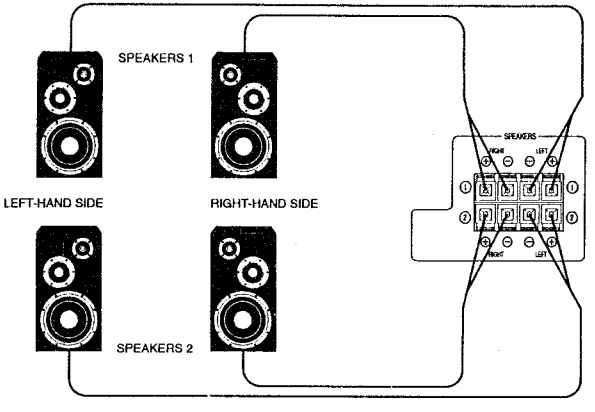


To connect each speaker, follow these steps:

Step 1 Open each terminal on the back of the receiver and insert the end of the speaker wire, as shown.

Step 2 Close the terminals to clamp the speaker wires in place, as shown.

⚠ **CAUTION!** Use speakers with an impedance of 8 ohms.



Connecting an AM Antenna

Before Starting

One AM loop antenna is supplied with your receiver.

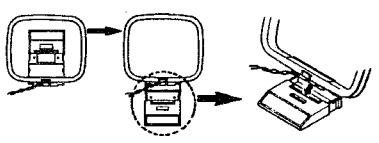
Basic Connections

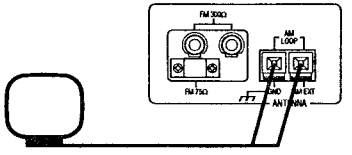
To connect the AM loop antenna to the AM LOOP terminals, follow these steps:

Step 1 Open each terminal and insert one of the two ends of the AM antenna wire.

Step 2 Close the terminals to clamp the antenna wires in place.

Step 3 Stand the AM loop antenna on its own base, as shown. Set it on any flat surface.





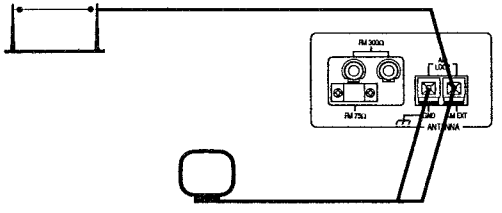
AM Outdoor Antenna

If your AM broadcast reception is unsatisfactory, you should connect an AM outdoor antenna in addition to the loop antenna. The antenna wire should be 16 to 40 feet (5 to 13 meters) long.

Connect one end of the outdoor single vinyl-covered antenna wire to the AM LOOP terminal marked AM EXT.

IMPORTANT! *The AM loop antenna must be installed to receive AM broadcasts. Do not disconnect the loop antenna when installing an outdoor antenna.*

IMPORTANT! *Except for the connection, make sure no uninsulated antenna wire touches the rear panel of the receiver. Otherwise, the receiver might not pick up AM broadcasts.*



Connecting an FM Antenna

Before Starting

A temporary FM antenna and cable is supplied with your receiver. If reception with this antenna is not satisfactory, you may consider purchasing a 300-ohm feeder-cable antenna or a 75-ohm coaxial-cable antenna:

⚠ **CAUTION!** Before connecting the new FM antenna, disconnect any other FM antenna.

Connecting the Temporary FM Antenna

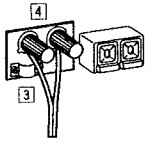
To connect the supplied antenna, follow these steps:

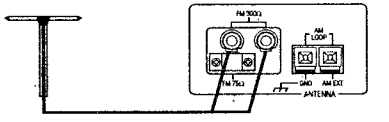
Step 1 Loosen the cap on the 300/75-ohm terminal on the back of the receiver.

Step 2 Loosen the cap on the 300-ohm terminal on the back of the receiver.

Step 3 Connect the antenna by inserting one wire behind each cap.

Step 4 Tighten the caps on both terminals.





Connecting a 300-Ohm FM Antenna

To connect a 300-ohm feeder-cable antenna, use the same steps as for the temporary FM antenna.

Connecting a 75-Ohm FM Antenna

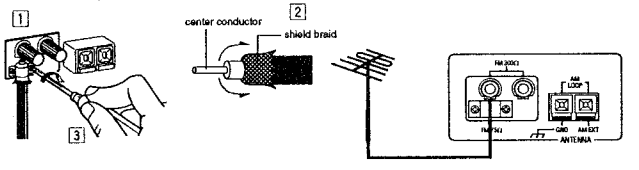
To connect a 75-ohm coaxial-cable antenna, follow these steps.

Step 1 Unscrew the cap and bracket screw on the 300/75-ohm terminal. Insert the round antenna cable from below.

Step 2 Make sure the shield braid on the cable contacts the bracket, and the center conductor of the cable contacts the 300/75-ohm terminal.

Step 3 Tighten the bracket screws and the cap on the 300/75-ohm terminal.

IMPORTANT! *Make sure the antenna conductors do not touch any other terminals on the receiver. This could cause poor reception.*



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Operation Outline

Connecting the Power

Connecting the Power Supply

After checking all connections, insert the power cord plug into an outlet.

When the power supply is connected correctly, the POWER STANDBY indicator lights on front of the receiver. A small amount of power (3 watts) is consumed under these conditi even if the receiver is turned off. To shut off the power completely, unplug the power cord fi the outlet.

⚠ **CAUTION!**

- Do not handle the power cord with wet hands.
- Do not pull on the power cord to unplug the receiver. Always grasp the pl directly so as not to damage the cord.
- Do not plug the power cord into a socket until all components are connecte correctly.

IMPORTANT! *If the power cord is disconnected or a power failure occurs, the receiver settings in memory are retained for 2 or 3 days.*

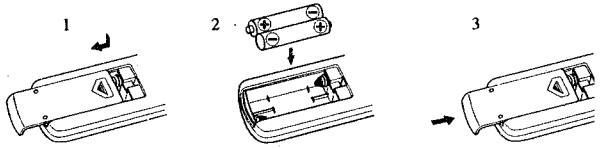
Inserting Batteries into the Remote Control

The remote control requires two batteries (supplied). To insert batteries, follow these st

Step 1 On the back side of the remote control, press down on the battery cover and sli out.

Step 2 Insert batteries. Make sure to observe the proper polarity: (+) to (+) and (–) to

Step 3 Slide the cover in.



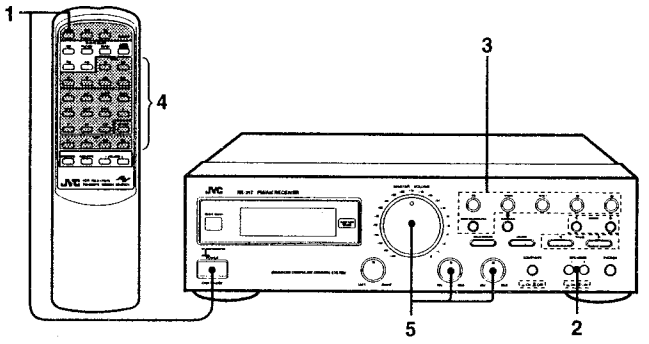
Replacing Batteries

If the range or effectiveness of the remote control decreases, replace the batteries. Use tw dry-cell batteries of the R6P (SUM-3)/AA (15F) type.

⚠ **CAUTION!** Follow these precautions to avoid leaking or cracking cells:

- Place batteries in the remote control so they match the polarity indicated (- to (+) and (–) to (–).
- Use the correct type of batteries. Batteries that look similar may differ in voltage.
- Always replace both batteries at the same time.
- Do not expose batteries to heat or flame.

Basic Operation Reference



1 Turn on the power

Push the POWER switch to turn on the receiver. The display lights:

NOTE: Pushing the POWER switch again turns off the power and lights the STANDBY light. A small amount of power (3 watts) is consumed and the STANDBY indicator is lit in the standby mode. To turn the power off completely, disconnect the power cord from the wall outlet.

2 Select speakers (page 15)

Use the SPEAKERS switch to choose between the two sets of speakers. To use your headphones, insert the headphone plug into the PHONES jack on the receiver.

3 Choose an audio source (page 12)

To choose an audio source, press one of the SOURCE SELECT buttons on the receiver or select one of the components on the remote control.

4 Operate the audio source (pages 17-19)

Refer to the manual provided with each component. If your JVC components are connected to the COMPU LINK jack of the receiver, you can operate them using the remote control.

5 Adjust volume and tone (pages 15-16)

Rotate the MASTER VOLUME control on the receiver or press the VOLUME button on the remote control to adjust volume. See page 15 for other ways to change the volume or tone.

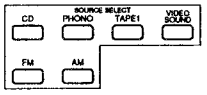
Selecting the Audio Source

The receiver can receive input from compact discs, cassette tapes, turntables, or any audio source that you connect. You can select a source for either listening or recording.

Listening

Press one of the SOURCE buttons on the receiver or the remote control.

CD*	Listen to the CD player.
PHONO*	Listen to a record.
TAPE 1*	Listen to the tape deck connected to the TAPE 1 jacks.
VIDEO SOUND/ TAPE 2	Listen to the tape deck connected to the TAPE 2 jacks.
FM*	Listen to an FM broadcast.
AM*	Listen to an AM broadcast.



IMPORTANT! *The VIDEO SOUND/TAPE 2 button has a different function from other source selector buttons, because it allows you to monitor the quality of the recording. For more details, see Monitoring below.*

NOTE: *On the remote, when you press one of the SOURCE buttons marked above with an asterisk, the receiver automatically turns ON (even if it was OFF before).*

Recording

The source being played is automatically selected as the source to be recorded. While recording, you can listen to the selected source at any desired volume and tone settings.

NOTE: *Volume and Tone adjustments and the surround sound effect do not affect recording.*

IMPORTANT! *When recording from TAPE 2 to TAPE 1, press the VIDEO SOUND/ TAPE 2 button and another button other than TAPE 1.*

Monitoring

Using the Monitor feature, you can compare the sound quality of the source to the sound quality of the recording being made.

To use the Monitor feature while recording onto a cassette deck connected to the TAPE 2 jacks, follow these steps:

Step 1 Press the VIDEO SOUND/TAPE 2 button.

The "TAPE 2 MONITOR" light appears and you can listen to the sound of the cassette deck connected to the TAPE 2 jacks. You are now hearing the quality of the recording, not the quality of the source.

Step 2 Press the VIDEO SOUND/TAPE 2 button again.

This turns off the "TAPE 2 MONITOR" light, and the speakers play the previously selected source.

NOTE: *If the cassette deck has three heads, you can hear the sound of the recording at the same time as it records on the tape.*

Receiving an AM/FM Broadcast

To receive an AM/FM broadcast, select either AM or FM using the AM button or FM button. Then tune to the precise frequency using the TUNING buttons.

Tuning

Tune to the frequency of a desired station using the TUNING buttons. Pressing the right button increases the frequency, and pressing the left button decreases the frequency. Tapping the TUNING button once changes the frequency in steps of 10 kHz for AM and 0.1 MHz for FM.

There are two tuning modes: Manual and Automatic.

Manual Tuning

If you know the frequency of a desired station, hold down the TUNING button to start the frequency changing quickly. Release the TUNING button near the desired station and tap it repeatedly until you arrive at the correct frequency.

Automatic Tuning

If you want to scan frequencies for a desired station, hold down the TUNING button to start the frequency changing quickly. When you release the TUNING button, the frequency continues to change until it reaches a station.

When a station is correctly tuned, the "TUNED" light appears on the display window.

Once a tuned frequency is preset, it can be directly recalled using the TUNER buttons. For details, see page 14.

NOTE: *When you use automatic tuning, weak stations are ignored. To pick up weak stations, use manual tuning.*

IMPORTANT! *If the receiver is tuned to a station but the "TUNED" light does not appear, try rotating the antenna for better reception.*

Selecting an FM Reception Mode

Pressing the FM MODE/MUTE switch switches between these modes.

The "MUTE-AUTO" light appears on the display window. You hear either stereo sound or monaural sound, depending on the broadcast. If it is a stereo broadcast, the "STEREO" light appears. This mode is also useful for suppressing static "noise" between stations.

The "MUTE-AUTO" light disappears. You hear monaural sound even if a broadcast is in stereo. This mode is also useful when a stereo broadcast is noisy because of a weak signal.

NOTE: *Using the Automatic Tuning mode, the sound of a broadcast with a weak signal may be muted. In this case, select the monaural mode.*

(No. 20500) 1-9

RX-316BK
RX-317TN

Presetting Tuned Frequencies

You can preset up to total 40 FM/AM radio stations by assigning channel numbers (1 through 40) to them. Once a station is preset, you can listen to it by entering the preset number using the PRESET buttons on the receiver, or the numeric buttons of the remote.

Presetting

To use presetting to assign channel numbers to your favorite stations, follow these steps:

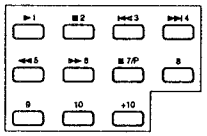
Step 1 Tune to a station. If necessary, follow the procedure on page 13.

Step 2 Press the MEMORY button.
The "MEMORY" light appears in the display window.

Step 3 Using the PRESET buttons, enter a number (1 through 40). This number is the channel number you are assigning to the station.

IMPORTANT! *You must enter the channel number while the "MEMORY" light is on. You have about 5 seconds to do this. If the light disappears before you enter the channel number, press the MEMORY button again.*

Step 4 While the preset channel number is flickering, press the memory button again. When the MEMORY light disappears and the channel number is displayed, presetting is completed.



To choose numbers from 1 through 40, press the +10 key and numeric button on the remote.

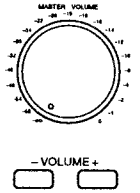
To choose 17	Press +10, then 7.
To choose 20	Press +10, then 10.
To choose 25	Press +10 twice, then 5.
To choose 40	Press +10 three times, then 10.

NOTE: *You can also tune using the remote control. First press the AM or FM button on the remote, then enter the channel number using the numeric buttons on the remote.*

Adjusting the Volume and Tone

Adjusting the Volume

Using the MASTER VOLUME Control



Use the MASTER VOLUME control to adjust the volume from the left and right speakers. Rotating the dial to the right increases the volume. The volume from the speakers and the headphones increases simultaneously.

NOTE: *Volume can also be adjusted using the remote control. Press the VOLUME button marked + to increase the volume, or the VOLUME button marked – to decrease the volume.*

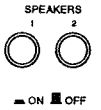
⚠ **CAUTION:** Listening to extremely loud sound may damage your hearing. Be especially careful when using headphones.

Muting the Sound

Press the FADE MUTE button on the remote control to decrease the volume easily when you receive a phone call or a visitor.

IMPORTANT! *If you are listening at very high volume, you may need to press FADE MUTE a second or third time to reduce volume completely.*

Selecting the Speakers



Pushing in SPEAKER button 1 or 2 activates that pair of speakers. Pressing either button again deactivates that pair of speakers. When the button is in, that pair is activated. You can listen to both pairs, pair 1, pair 2, or neither pair.

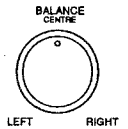
IMPORTANT! *If only one set of speakers is connected, pressing "in" both speaker buttons will produce no sound.*

Listening to Headphones

Insert the headphone plug into the PHONES jack. To limit sound to the headphones (no sound from the speakers), press SPEAKER buttons 1 and 2 to deactivate all speakers.

⚠ **CAUTION:** To avoid hearing damage, turn the volume down before plugging in the headphones, then gradually increase the volume.

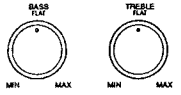
Adjusting the Left-Right Balance



Use the BALANCE control to adjust the balance between the left and right channels. Rotating the dial to the right decreases the left-channel volume, and rotating it to the left decreases the right-channel volume. The BALANCE control affects both sets of speakers and the headphones.

Adjusting the Tone

Adjusting Bass and Treble



Use the BASS control to adjust low pitches and the TREBLE control to adjust high pitches. Turn either control to the right for intensified pitch. Set both controls at the FLAT position for normal listening.

Enjoying the Surround Sound Effect

Press the SURROUND button to create this movie-theater effect. The SURROUND indicator lights. Press the SURROUND button again to deactivate the surround feature. The SURROUND indicator turns off.

IMPORTANT! *The Surround feature has no effect on monaural (non-stereo) sources.*

NOTE: Two set of speakers are recommended to produce an ideal surround effect, but you can use the feature with only one set of speakers connected.

Listening at Low Volume *(Loudness)*

Human ears are not sensitive to bass at low volume. To compensate for this, the loudness function automatically boosts the bass level as you lower the volume.

To use the loudness function, press the LOUDNESS button.

To turn the function off, press the LOUDNESS button again.

Operating Audio Components

COMPU LINK Remote Control System

The COMPU LINK remote control system lets you operate the receiver and JVC components from the remote supplied with this receiver. Control signals for JVC audio components are preset in the receiver's remote control.

Connecting the COMPU LINK-3 SYNCHRO jacks on the back of the receiver will allow you to use the four functions below.

Remote Control

You can control all components via the REMOTE SENSOR on the receiver using the receiver's remote control. For details, see page 18.

IMPORTANT! *Point the remote control directly at the REMOTE SENSOR on the receiver.*

Automatic Source Selection

When you *press play* on a component or the remote, the component begins playing immediately. On the other hand, if you select a *new source* on the receiver or the remote, the component begins playing immediately, but the previously selected source continues playing without sound for a few seconds.

Synchronized Recording

Synchronized recording means the tape deck starts recording as soon as a CD or record begins playing.

To use synchronized recording, follow these steps:

Step 1 Put a tape in the deck, and a disc in the CD player or on the turntable.

Step 2 Press the REC and PAUSE button on the tape deck at the same time. This puts the tape deck in the REC/PAUSE state.

IMPORTANT! *If you do not press the REC button and PAUSE button together, the synchronized recording feature will not operate.*

Step 3 Press the PLAY button on the CD player or turntable.

As soon as the disc starts playing, the tape deck starts recording. When the disc ends, the tape deck switches back to the REC/PAUSE mode, and stops 4 seconds later.

NOTES:

- *During synchronized recording, the CD or PHONO button is activated. Other SOURCE buttons are disabled to prevent recording failure.*
- *If your CD player is operated in the PROGRAM mode, a 4-second mute is recorded between tracks to enable the music scan feature of your tape deck to work.*
- *If the power of any component is shut off during synchronized recording, the system will not operate properly. In this case, you must start again with step 1.*

Automatic Power ON/OFF

The CD player and cassette deck are turned on and off along with the receiver. When you turn on the receiver (using either the remote or the receiver's POWER switch), the CD player or cassette deck will turn on automatically, depending which component was previously selected.

NOTE: This function has been added to COMPU LINK-3 (Enhanced COMPU LINK), an upgraded version of COMPU LINK-1. Refer to your JVC component manual for details.

(No. 20500) 1-11

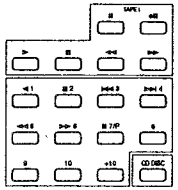
RX-316BK
RX-317TN

Using the Remote Control

By connecting the COMPU LINK jack to this receiver, you can operate the audio stereo component with this receiver's remote control. In addition, if your VCR is a JVC product, you can operate it with this receiver's remote control.

NOTE: The VCR does not work with the COMPU LINK remote control system. When you operate the VCR, you must aim the remote control at the VCR instead of the receiver.

Operating the Component Already Selected

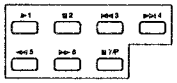


Select a source with the SOURCE SELECT buttons on the remote control. Operate that source using the buttons below the SOURCE SELECT buttons.

IMPORTANT! *If you choose a source on the receiver directly, the remote control will not operate that source. To operate a source with the remote control, the source must be selected using the remote control.*

IMPORTANT! *When you select CD, TAPE 1, FM, AM or PHONO on the remote control, the component will turn on and start playing automatically.*

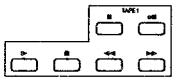
CD Player



After pressing the CD button, you can perform the following operations on the remote:

- ► Starts playing
- |◄◄ Skips to the beginning of the previous track
- ►►| Skips to the beginning of the next track
- ■ Stops playing
- ❚❚ Stops playing temporarily. To release it, press ►
- ◄◄ Moves backward quickly during play
- ►► Moves forward quickly during play

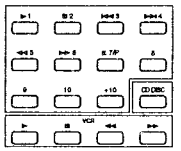
Cassette Deck



After pressing or not pressing the TAPE 1 button, you can perform the following operations on the remote:

- ► Starts playback
- ■ Stops operation
- ❚❚ Stops playback or recording temporarily. To release it, press ►
- ◄◄ Fast wind the tape from right to left
- ►► Fast wind the tape from left to right
- ● ❚❚ Enter record-standby mode

Operating the Component Not Currently Selected



When you want to operate one component while listening to another component (e.g., recording from a CD), use the buttons in the CONTROL section of the remote control. The CONTROL buttons allow you to use the operation buttons for the new component without affecting the component already playing.

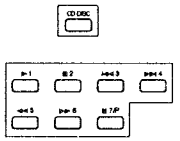
VCR

- ► Starts playback
- ■ Stops operation
- ◄◄ Rewinds video tape
- ►► Fast winds video tape

NOTE: You can also turn the VCR and TV on and off by pressing the VCR or TV button in the POWER section of the remote control.

IMPORTANT! *Aim the remote control at the VCR or TV, not at the receiver.*

CD Player-Changer



After pressing the CD DISC button in the CONTROL section of the remote, you can perform the following operations on the remote:

1-6, P Select the number of the disk installed in the CD player-changer. Then continue to operate the CD player as shown on page 18.

Specifications (RX-317TN)

Amplifier

Output Power	**110 watts per channel, min. RMS, both channels driven into 8 ohms from 40 Hz to 20 kHz, with no more than 0.9% total harmonic distortion.**
Total Harmonic Distortion (8 ohms, 1 kHz)	0.08%* at 90 watts output
Frequency Response (8 ohms)	
PHONO	20 Hz to 20 kHz (±1 dB)
CD / TAPE 1 / TAPE 2	20 Hz to 20 kHz (±1 dB)
Signal-to-Noise Ratio ('66 IHF / '78 IHF)	
PHONO	70 dB / 78 dB (REC OUT)
CD / TAPE 1 / TAPE 2	91 dB/ 80 dB
RIAA Phono Equalization	±1 dB (20 Hz to 20 kHz)
Input Sensitivity / Impedance (1 kHz)	
PHONO	2.5 mV / 47 k ohms
CD / TAPE 1 / TAPE 2	200 mV / 47 k ohms
Output Level	
TAPE 1 / TAPE 2	200 mV
Tone Control Range	BASS (at 100 Hz) ±8 dB TREBLE (at 10 kHz) ±8 dB
Loudness Control	+4.5 dB (at 100 Hz) (Volume control at –30 dB)

FM Tuner (IHF)

Tuning Range	87.5 MHz to 108.0 MHz
Usable Sensitivity	10.8 dBf (0.95 µV / 75 ohms)
50 dB Quieting Sensitivity	
Monaural	16.3 dBf (1.8 µV / 75 ohms)
Stereo	38.3 dBf (22.5 µV / 75 ohms)
Signal-to-Noise Ratio (IHF-A weighted)	
Monaural	80 dB at 85 dBf
Stereo	73 dB at 85 dBf
Total Harmonic Distortion	
Monaural	0.15 % at 1 kHz
Stereo	0.2 % at 1 kHz
Stereo Separation at REC OUT	40 dB at 1 kHz

Capture Ratio	1.5 dB (10 mV / 300 ohms)
Alternate Channel Selectivity	60 dB: (±400 kHz)
Frequency Response	30 Hz to 15 kHz: (+0.5 dB, –3 dB)

AM Tuner

Tuning Range	530 kHz to 1,710 kHz
Usable Sensitivity	
Loop antenna	300µV/m at 1,000 kHz
External antenna	30µV at 1,000 kHz
Signal-to-Noise Ratio	50 dB (100mV / m, at 1,000 kHz)

General

Power Requirements	AC 120V ∿, 60 Hz
Power Consumption	220 watts, 310 VA (at operation) 3 watts, 4 VA (at standby mode)
Dimensions (W x H x D)	17 3/16 x 5 x 14 1/16 inches 435 x 126 x 356 mm
Mass	18.5 lbs (8.4 kg)

*Measured by JVC Audio Analysis System.

Supplied Accessories

- Remote control unit (RM-SR317U) 1
- Batteries R6P (SUM-3)/AA (15F) 2
- FM feeder antenna 1
- AM loop antenna 1

Designs and specifications subject to change without notice.

(No. 20500) 1-13

RX-316BK
RX-317TN

Specifications (RX-316BK)

Amplifier

Output Power	*110 watts per channel, min. RMS, both channels driven into 8 ohms from 40Hz to 20kHz, with no more than 0.9% total harmonic distortion.*
Total Harmonic Distortion (8 ohms, 1kHz)	0.08%* at 60 watts output
Frequency Response (8 ohms)	
PHONO	20Hz to 20kHz (±1dB)
CD / TAPE1 / TAPE2	20Hz to 20kHz (±1dB)
Signal-to-Noise Ratio ('66 IHF / DIN)	
PHONO	70dB / 66dB
CD / TAPE1 / TAPE2	91dB / 87dB
RIAA Phono Equalization	±1dB (20Hz to 20kHz)
Input Sensitivity / Impedance (1kHz)	
PHONO	2.5mV / 47k ohms
CD / TAPE1 / TAPE2	200mV / 47k ohms
Output Level	
TAPE1 / TAPE2	200mV
Tone Control Range	BASS (at 100Hz) ±8dB TREBLE (at 10kHz) ±8dB
Loudness Control	+4.5dB (at 100Hz) (Volume control at −30dB)

FM Tuner (IHF)

Tuning Range	87.5MHz to 108.0MHz
Usable Sensitivity	10.8dBf (0.95µV / 75 ohms)
50dB Quieting Sensitivity	
Monaural	16.3dBf (1.8µV / 75 ohms)
Stereo	38.3dBf (22.5µV / 75 ohms)
Signal-to-Noise Ratio (IHF-A weighted / DIN)	
Monaural	80dB at 85dBf / 72dB at 85dBf
Stereo	73dB at 85dBf / 64dB at 85dBf
Total Harmonic Distortion (IHF / DIN)	
Monaural	0.15% at 1kHz / 0.1% at 1kHz
Stereo	0.2% at 1kHz / 0.3% at 1kHz
Stereo Separation at REC OUT	40 at 1kHz
Capture Ratio (IHF)	1.5dB (10mV/300 ohms)
Alternate Channel Selectivity (IHF / DIN)	60dB : (±400kHz) / 55dB (±300kHz)
Frequency Response	30Hz to 15kHz : (+0.5dB, −3dB)

AM Tuner

Tuning Range	531kHz to 1,608kHz / 530kHz to 1,600kHz (selectable)
Usable Sensitivity	
Loop antenna	300µV/m / 600µV/m**
External antenna	30µV / 100µV**
Signal-to-Noise Ratio (MW / LW)	50dB** (100mV/m)
Selectivity *(MW / LW)*	25dB (±10kHz, ±9kHz) / 32dB (±9kHz)**

General

Power Requirements	AC110V/127V/220V240V~, 50/60Hz
Power Consumption	170 watts, 310VA (at operation) 3 watts, 4VA (at standby mode)
Dimensions (W×H×D)	17 3/16×5×13 inches 435×126×341mm
Mass	17.7lbs 8.0kg

* Measured by JVC Audio Analysis System.
** Measured at 1000kHz or 999kHz (MW), at 245kHz (LW).

Supplied Accessories

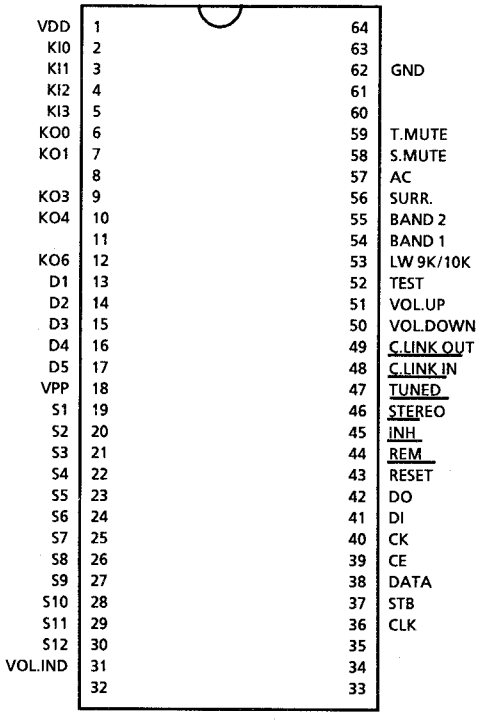
Remote control unit (RM-SR317U)	1
Batteries R6P (SUM-3) / AA (15F)	2
FM feeder antenna	1
AM loop antenna	1

Designs and specifications subject to change without notice.

Description of Major LSIs

■ MN171202YY (IC401) : SYSTEM CONTROLLER

1. Terminal Layout



2. Key Matrix

	KEY IN 0	KEY IN 1	KEY IN2	KEY IN3
KEY OUT 0	TAPE 1	TAPE 2 MONITOR	TUNE UP	TUNE DOWN
KEY OUT 1	MEMORY	SURROUND	—	—
KEY OUT3	CD	PHONO	FM	AM
KEY OUT4	FM MODE	—	—	—
KEY OUT6	POWER	—	PRESET UP	PRESET DOWN

3. Description

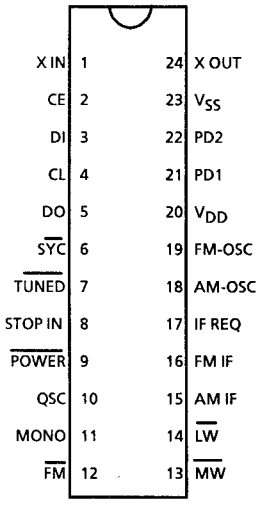
Pin No.	Symbol	I/O	Description	Pin NO.	Symbol	I/O	Description
1	VDD	--	Power supply	33	SURR. IND	O	SURROUND indicator signal output
2	KI0	I	Key matrix input	34		--	GND
3	KI1	I	Key matrix input	35		--	GND
4	KI2	I	Key matrix input	36	CLK	O	Clock output
5	KI3	I	Key matrix input	37	STB	O	Strobe signal output
6	KO0	O	Key matrix output	38	DATA	O	Data output
7	KO1	O	Key matrix output	39	CE	O	Chip enable signal output
8		--	Not used	40	CK	O	System clock output
9	KO3	O	Key matrix output	41	DI	I	Data input
10	KO4	O	Key matrix output	42	DO	O	Data output
11		--	Not used	43	RESET	I	Reset signal input
12	KO6	O	Key matrix output	44	REM	I	Signal input from REMOTE SENSOR
13	D1	O	FL grid control	45	INH	I	Inhibit signal input
14	D2	O	FL grid control	46	STEREO	I	STEREO signal input
15	D3	O	FL grid control	47	TUNED	I	TUNED signal input
16	D4	O	FL grid control	48	C.LINK IN	I	Compulink signal input
17	D5	O	FL grid control	49	C.LINK OUT	O	Compulink signal output
18	VPP	--	Power supply (−B)	50	VOL. DOWN	O	Volume down control signal output
19	S1	O	FL segment control	51	VOL. UP	O	Volume up control signal output
20	S2	O	FL segment control	52	TESST	--	TESST point
21	S3	O	FL segment control	53	LW 9K/10K	I	Select 9K/10K
22	S4	O	FL segment control	54	BAND 1	I	Chip select
23	S5	O	FL segment control	55	BAND 2	I	Chip select
24	S6	O	FL segment control	56	SURR.	O	SURROUND ON signal output
25	S7	O	FL segment control	57	AC	O	This signal turns the primary relay on
26	S8	O	FL segment control	58	S. MUTE	O	Muting signal when changing the source
27	S9	O	FL segment control	59	T. MUTE	O	Tuner mute signal
28	S10	O	FL segment control	60		--	GND
29	S11	O	FL segment control	61		--	Not used
30	S12	O	FL segment control	62	GND	--	GND
31	VOL. IND	O	Volume indicator signal output	63		--	Oscillation terminal
32	SEB. IND	O	STANDBY indicator signal output	64		--	Oscillation terminal

■ LC7218 (IC102) : PLL Synthesizer

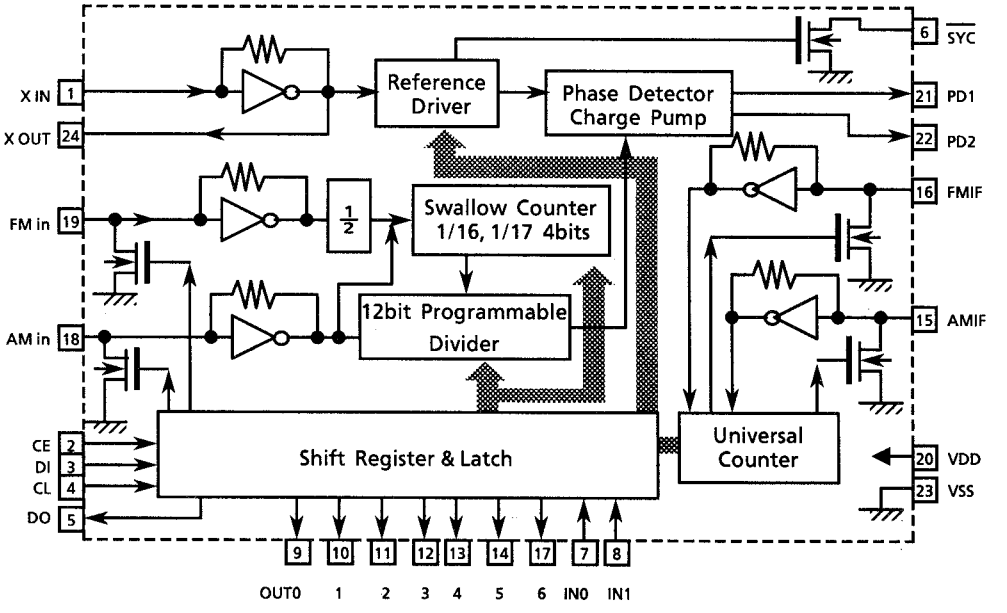
1. The main function descriptions

(1) It makes the local oscillation frequency by the control data from IC901.
(2) Decode the control signal and transmit the signal for receiving conditions.
(3) For the best tuning, count the internal-frequency and transmit the data to IC901.

2. Terminal Layout



3. Block Diagram



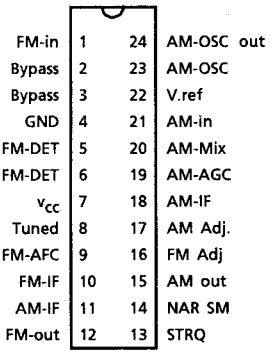
4. Pin Functions

Pin No.	Symbol	I/O	Functions
1,24	X in , X out	I/O	Crystal oscillator (7.2MHz).
2	CE	I	Fix the chip enable to "H" when inputting (DI) and outputting (DO) the serial data.
3	DI	I	Receive the control data from the controller (IC801).
4	CL	I	This clock is used to synchronize data when transmitting the data of DI and DO.
5	DO	O	Transmit the data from LC7218 to the controller which is synchronized with CL.
6	SYC	—	Not used.
7	TUNED	I	Receive the tuned signal from IC104 (LA1266A).
8	STOP IN	—	Connected to GND
9	POWER	—	Not used.
10	QSC	—	Not used.
11	MONO	O	It is "H" on FM-monaural, "L" on FM-Stereo.
12	FM	O	It is "L" on FM mode.
13	MW	O	It is "L" on MW mode.
14	LW	O	It is "L" on LW mode.
15	AM-IF	I	Universal counter input for AM-IF from IC104 (LA1266A).
16	FM-IF	I	Universal counter input for FM-IF from IC104(LA1266A).
17	IF REQ	O	Output the "IF-signal request" to IC104 when the pin-7 (tuned in) goes to "H".
18	AM OSC	I	Input the local oscillator signal of AM.
19	FM OSC	I	Input the local oscillator signal of FM.
20	V_{DD}	—	This is a terminal of power supply.
21	PD1	O	PLL charge pump output : When the local oscillator signal frequency is higher than the reference frequency high level signals will output. When it is lower than the reference frequency, low level signals will output. When it is same as reference frequency signals, it will be floating.
22	PD2	—	Not used.
23	Vss	—	Connected to GND

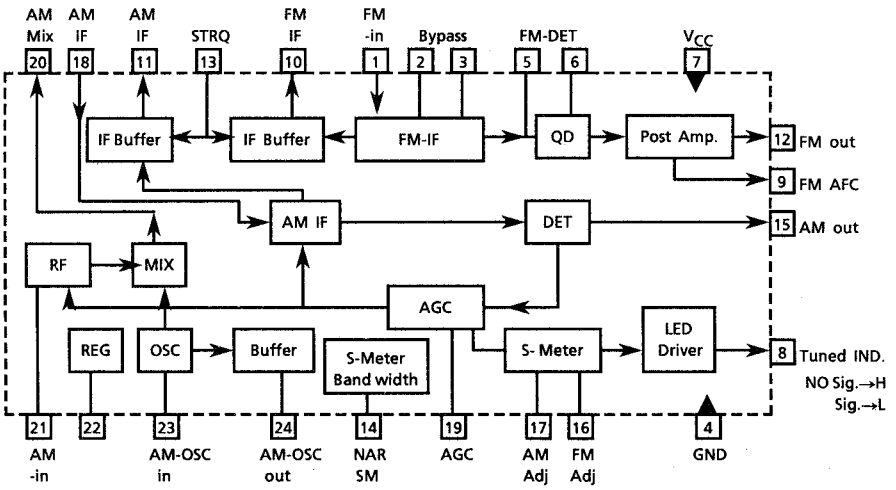
■ LA1266A (IC104) : FM AM IF AMP & detector

1. The main function descriptions
   (1) Amplify and detect of FM intermediate frequencies.
   (2) It has local oscillator and mixer for AM, and detect the AM-IF signal.

2. Top View


FM-in 1 24 AM-OSC out
Bypass 2 23 AM-OSC
Bypass 3 22 V.ref
GND 4 21 AM-in
FM-DET 5 20 AM-Mix
FM-DET 6 19 AM-AGC
Vcc 7 18 AM-IF
Tuned 8 17 AM Adj.
FM-AFC 9 16 FM Adj
FM-IF 10 15 AM out
AM-IF 11 14 NAR SM
FM-out 12 13 STRQ

3. Block Diagram



4. Pin Function Description

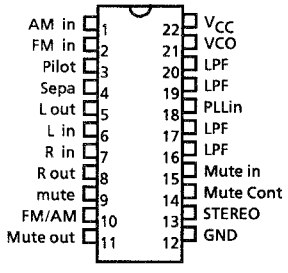
Pin No.	Symbol	I/O	Functions and Operations
1	FM in	I	This is an input terminal of FM IF Signal.
2,3	Bypass	--	Bypass of FM IF Amp.
4	GND	--	This is the device ground terminal.
5,6	FM DET	--	FM detect transformer.
7	V_{CC}	--	This is the power supply terminal.
8	Tuned	O	When the set is tunning ,this terminal become "L".
9	FM AFC	O	This is an output terminal of voltage for FM - AFC.
10	FM IF out	O	When the signal of IF REQ of IC102(LC7218) applied to pin17, the signal of FM IF does output.
11	AM IF out	O	When the signal of IF REQ of IC102(LC7218) applied to pin17, the signal of AM IF does output.
12	FM out	O	FM detection output.
13	STRQ	I	The IF-signals come out from pin10 (FM-IF) or pin11 (AM-IF) while this terminal going to "High".
14	NAR SM	--	Control the Band-width of signal meter.
15	AM out	O	AM detection output.
16	FM Adj	--	For adjust the stop level (or mute level) of FM.
17	AM Adj	--	For adjust the stop level (or mute level) of AM.
18	AM-IF	I	Input of AM IF Signal.
19	AM-AGC	I	This is an AGC voltage Input terminal for AM.
20	AM-MIX	O	This is an output terminal for AM mixer.
21	AM-IN	I	This is an input terminal for AM RF Signal.
22	V.REF	--	Register value between pin9 and pin22 desides the frequency width of the input signal.
23	AM-OSC	--	This is a terminal of AM Local oscillation circuit.
24	AM-OSC out	O	AM Local Oscillation Signal output.

■ LA3401 (IC105) : FM MPX Detector

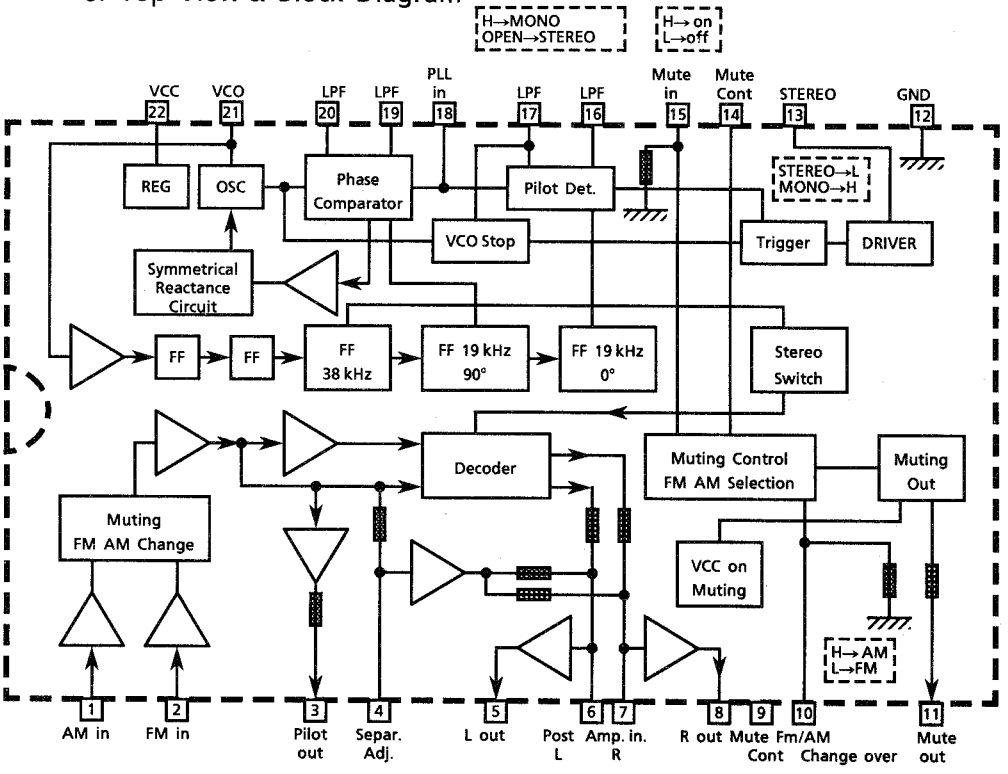
1. The main function descriptions

(1) Detect the FM Multiplex Signal (Stereo signal).
(2) When receiving FM Stereo Signal, it outputs the signal for indicator.
(3) AM / FM Audio Amplifier.

2. Terminal Layout



3. Top View & Block Diagram



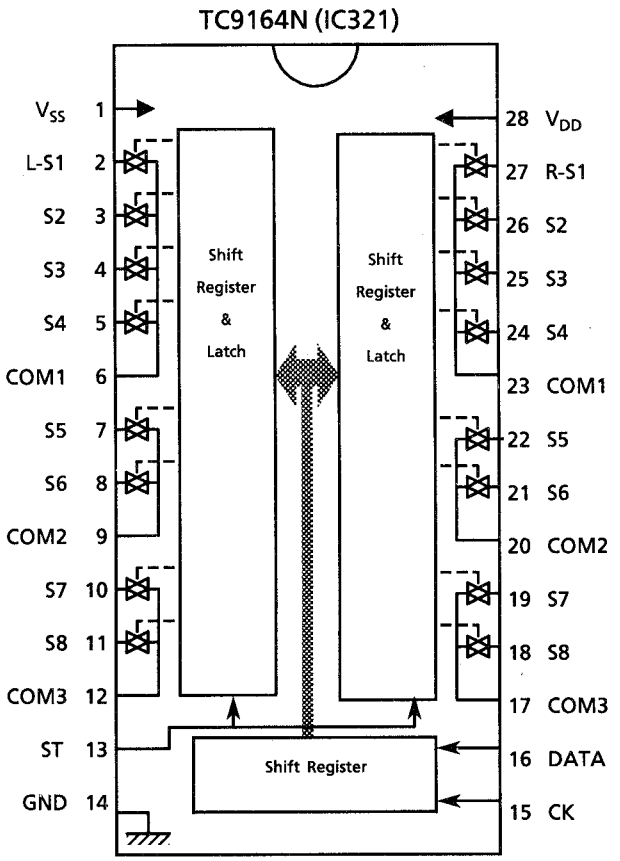
4. Pin Function Description

Pin No.	Symbol	I/O	Functions and Operations
1	AM in	I	This is an input terminal for AM detection signal.
2	FM in	I	This is an input terminal for FM detection signal.
3	Pilot out	O	Output of MPX pilot signal (Connect to Pin18).
4	Sepa. Adj.	--	Separation adjustment.
5	L. out	O	Left channel signal output.
6	L	O	Reversal output of Pin5.
7	R	O	Reversal output of Pin8.
8	R out	O	Right channel signal output
9	Mute Cont	--	The mute time is controlled by the connected capacitor when turning the power switch on.
10	FM / AM	I	Change over the FM / AM input. "H" : AM, "L" : FM
11	Mute out	---	Not use
12	GND	--	Ground terminal.
13	Stereo	O	Stereo indicator output. Stereo : "L", Mono : "H"
14	Mute Cont	--	The mute time is controlled by the connected capacitor when changing over the FM / AM .
15	Mute in	I	Mute signal input."H" : Mute on, "L" : Mute off.
16	LPF	--	Low pass filter of pilot detector.
17	LPF	--	While this terminal goes to "H", the VCO stop.
18	Pilot in	I	PLL input.
19	LPF	--	Low-pass filter of PLL.
20	LPF	--	Low-pass filter of PLL.
21	VCO	I	Voltage controlled oscillator terminal.
22	V_{CC}	--	Power supply.

■ TC9164N (IC321) : Analog Switch

1. Functions
   These analog switches are controlled by 14 bit serial date from computer for selecting the source.

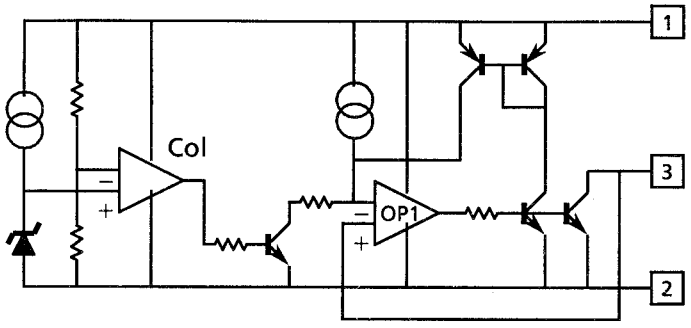
2. Terminal Layout & Block diagram



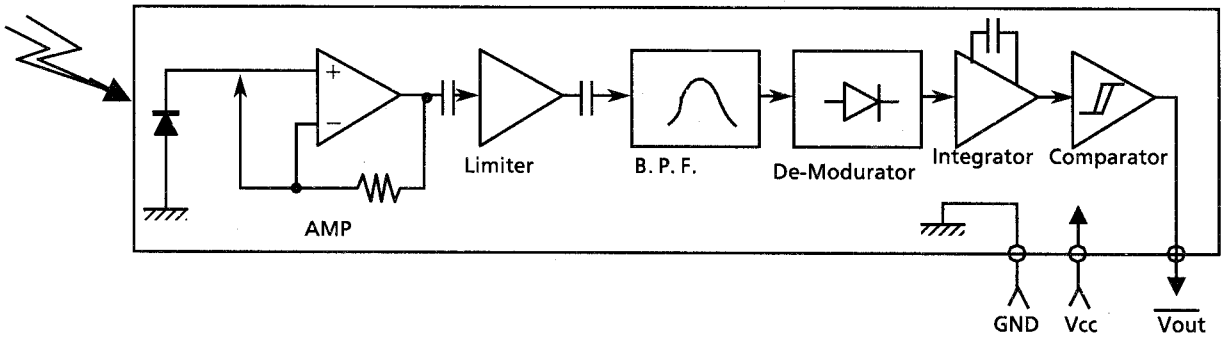
3. First 10bits are used to source select. Last 4bits are chip select. The switches (S1~S8) are connected to common terminals (COM1~COM3) according to the DATA from computer.

	Switch Select bit								CH1 (R-S1~S8)	CH2 (L-S1~S8)	Chip Select bit			
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14
TC9164N	The switch is ON when the data is "1".										0	1	0	0

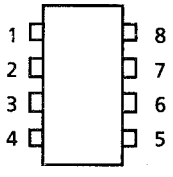
■ PST600E (IC402) : Reset IC



■ NJH32H380A (IC402) : Remocon Module IC

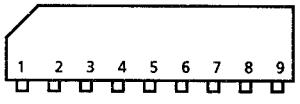


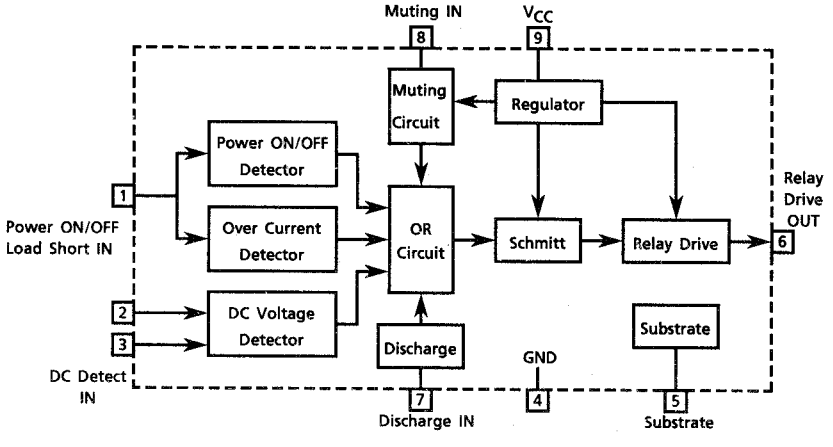
■ LB1639 (IC361) : Motor Driver



IN 1	IN 2	OUT 1	OUT 2	MOTOR
H	L	H	L	CLOCKWISE
L	H	L	H	COUNTER-CLOCKWISE
H	H	OFF	OFF	WAITING
L	L	OFF	OFF	WAITING

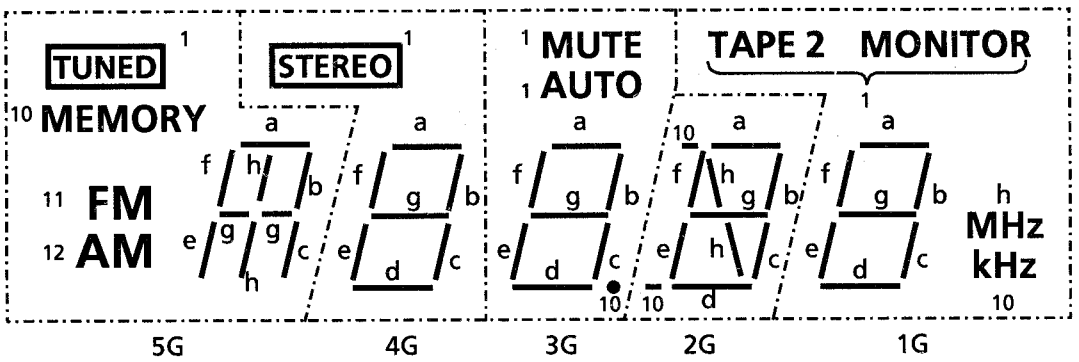
■ TA7317P (IC901) : PROTECTOR





Internal Connections of the FL Display

■ELU0001-143 : FL401



Pin Connection

PIN NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
ELECTRODE	F1	F1	NP	P12	P11	P10	Ph	Pg	Pf	Pe	Pd	Pc	Pb	Pa						
PIN NUMBER							15	16	17	18	19	20	21	22	23	24	25	26	27	28
ELECTRODE							P1	NP	NP	NP	NP	NP	5G	4G	3G	2G	1G	NP	F2	F2

Note F : Filament, G : Grid, P : Element, NP : No Pin, NC : No Connection

Disassembly Procedures

(1) Removing the Top Cover

1. Remove the 4 screws fastening both sides of the Top Cover, and the 2 screws fastening the rear sides.
2. Remove the Top Cover.

(2) Removing the Front Panel

1. Remove the 3 screws Ⓐ fastening top of the Front Panel, and the 3 screws Ⓕ fastening bottom of the Front Panel.
2. Disconnect the connectors. (P101,P702,P806,PA807,PA703,P805)
3. Remove the master volume knob.
4. Remove the nut fastenning the master volume .
5. Remove the Front Panel.

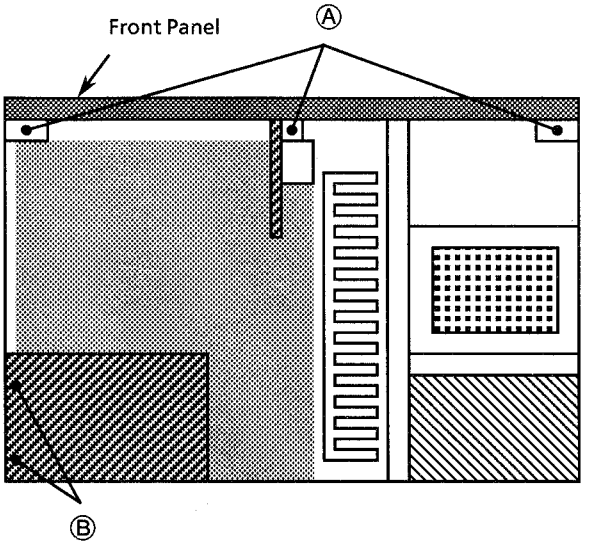


Fig 1. Top View

(3) Removing the Bottom Cover

1. Remove the 17 screws Ⓔ .
2. Remove the Bottom Cover.

(4) Removing the Tuner P.C. Board

1. Disconnect the connectors.(P101,P103)
2. Remove the 6 screws Ⓑ, Ⓒ and Ⓓ, and take it out.

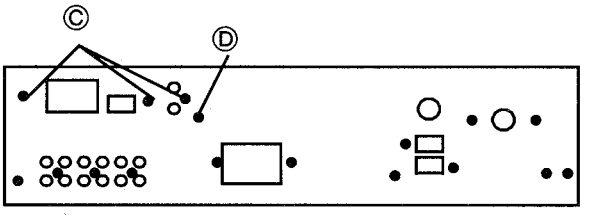


Fig 2. Rear View

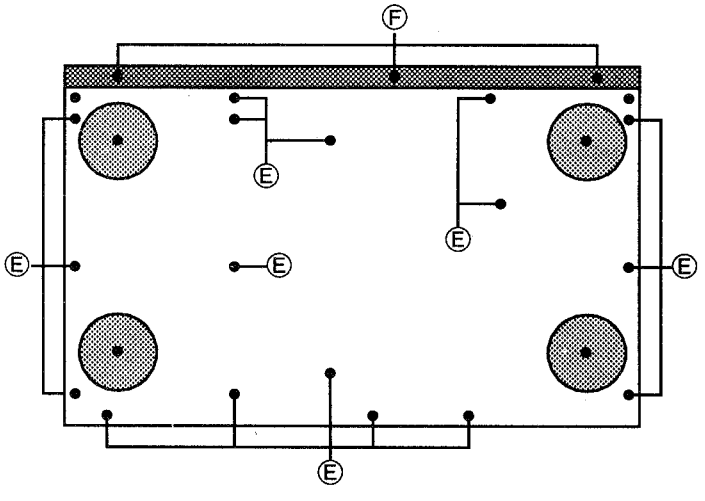


Fig 3. Bottom Cover

ADJUSTMENT PROCEDURES

■ Tuner section

Tuning range

Area	Range	
	MW (Kz)	FM (Mz)
U.S.A., Canada, Universal	522~1629	87.5~108

(1) Tuning Voltage
Confirm the voltages in the table at TP101.

FM Tuning voltage (Unit: V)

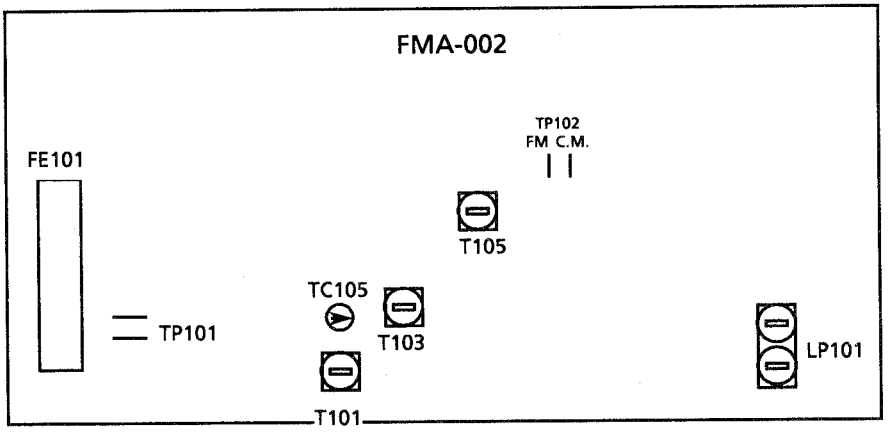
Area	Frequency	
	87.5MHz	108MHz
U.S.A., Canada, Universal	1.6±1.0	8.0±1.0

AM Tuning voltage (Unit : V)

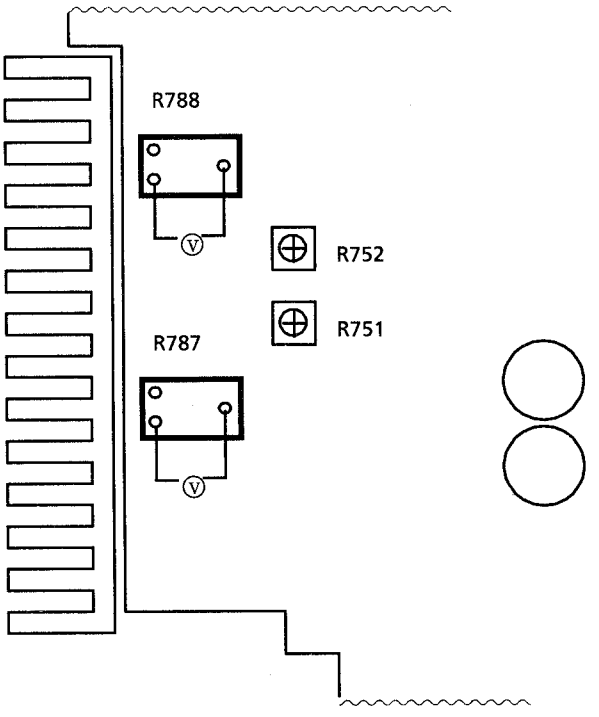
Area	Frequency (MW)						
	522KHz	530KHz	531KHz	1600KHz	1602KHz	1629KHz	1710KHz
U.S.A., Canada	—	0.9±0.2	—	—	—	—	8.0±0.8
Universal (Channel space9kHz)	—	—	0.9±0.2	—	7.2±0.7	—	—
Universal (Channel space10kHz)	—	0.9±0.2	—	7.2±0.7	—	—	—

(2) FM Center meter
Receive a broadcast by using the function of 'AUTO STOP'.
Adjust T105 (Detector coil) so that the voltage at TP102 becomes 0±1.5mV.

(3) MW Tracking
Adjust T101 (Antenna coil) to obtain the best receiving sensitivity on 603kHz or 600kHz.
Adjust TC105 (Antenna trimmer) to obtain the best receiving sensitivity on 1404kHz or 1400kHz.



■ Power Amplifier section



Idling Current

(1) Set the volume control to minimum during this adjustment.

(2) Turn R751 and R752 fully counterclockwise before the power is switch on.

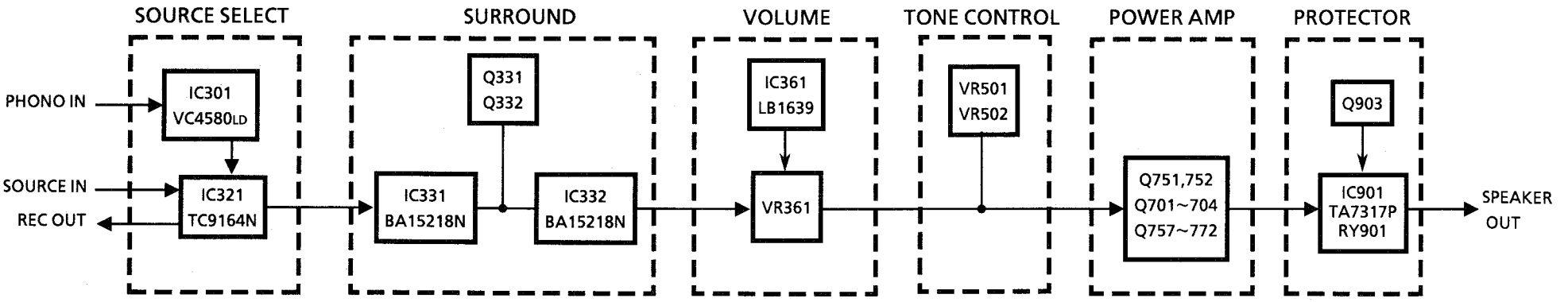
(3) Always start from cold, and allow 5 minutes to warm up before adjustment.
If the heatsink is already warm from previous use the correct adjustment can not be made.

(4) Connect a DC voltmeter to R787 resistor's leads for left channel, or to R788 for right channel.

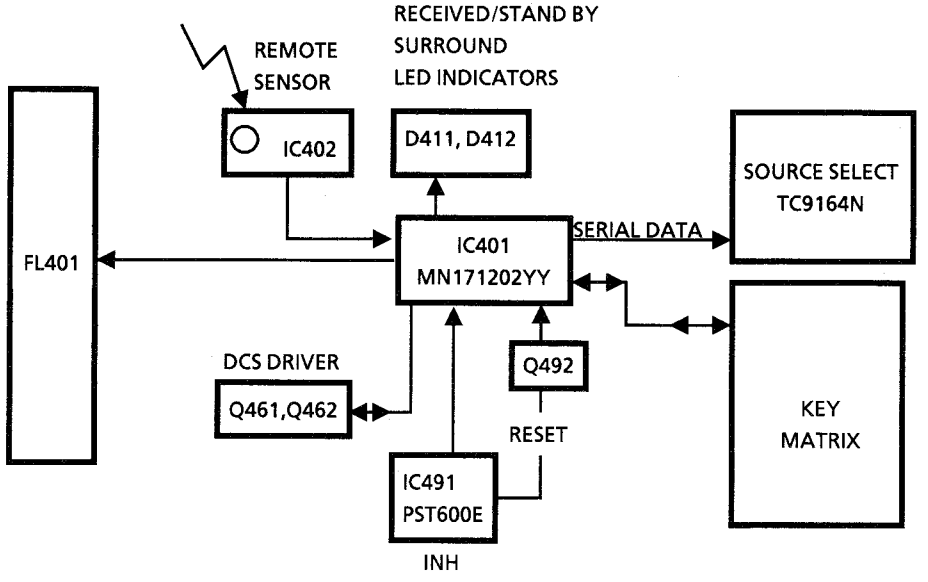
(5) Adjust R751 for left channel, or R752 for right channel, so that the DC voltmeter becomes 2mV ~ 3mV.

Block Diagram

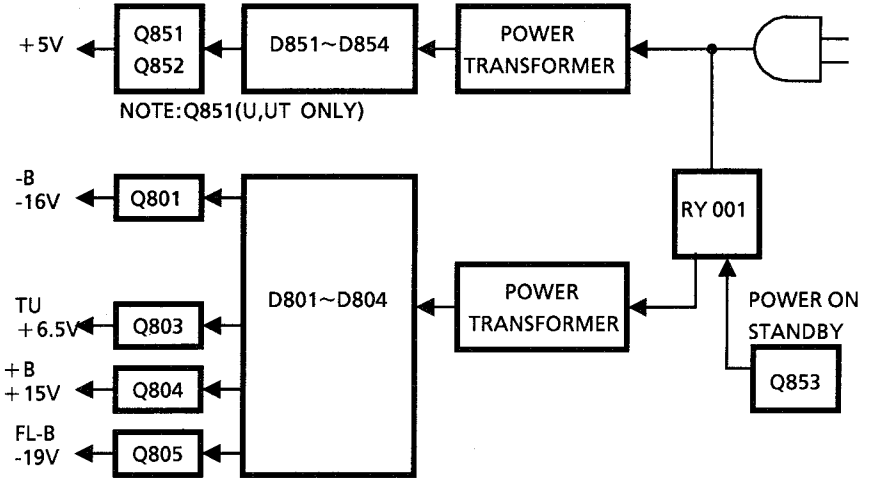
■ Audio Section



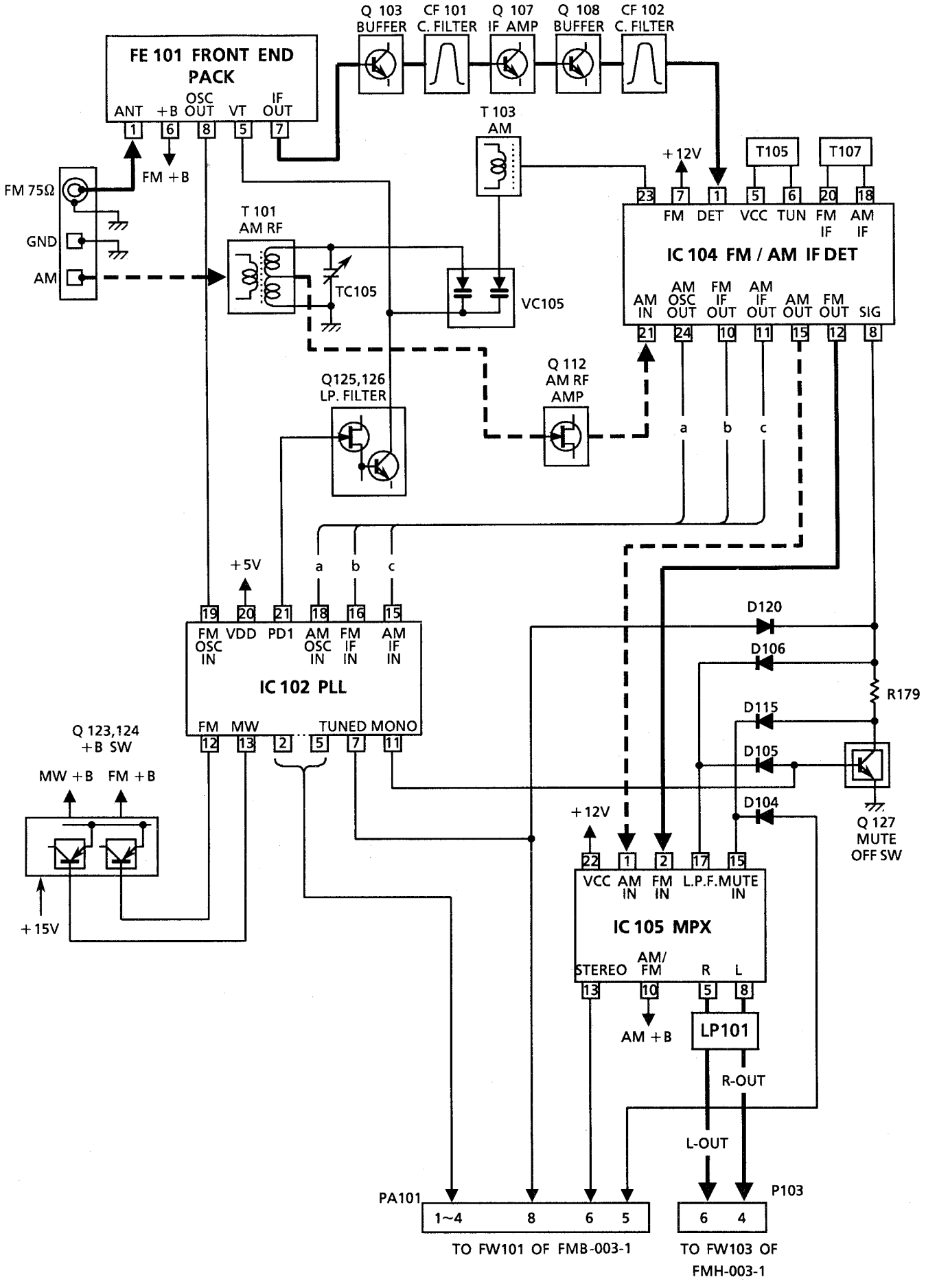
■ Control Section



■ Power Supply Section



■ Tuner Section

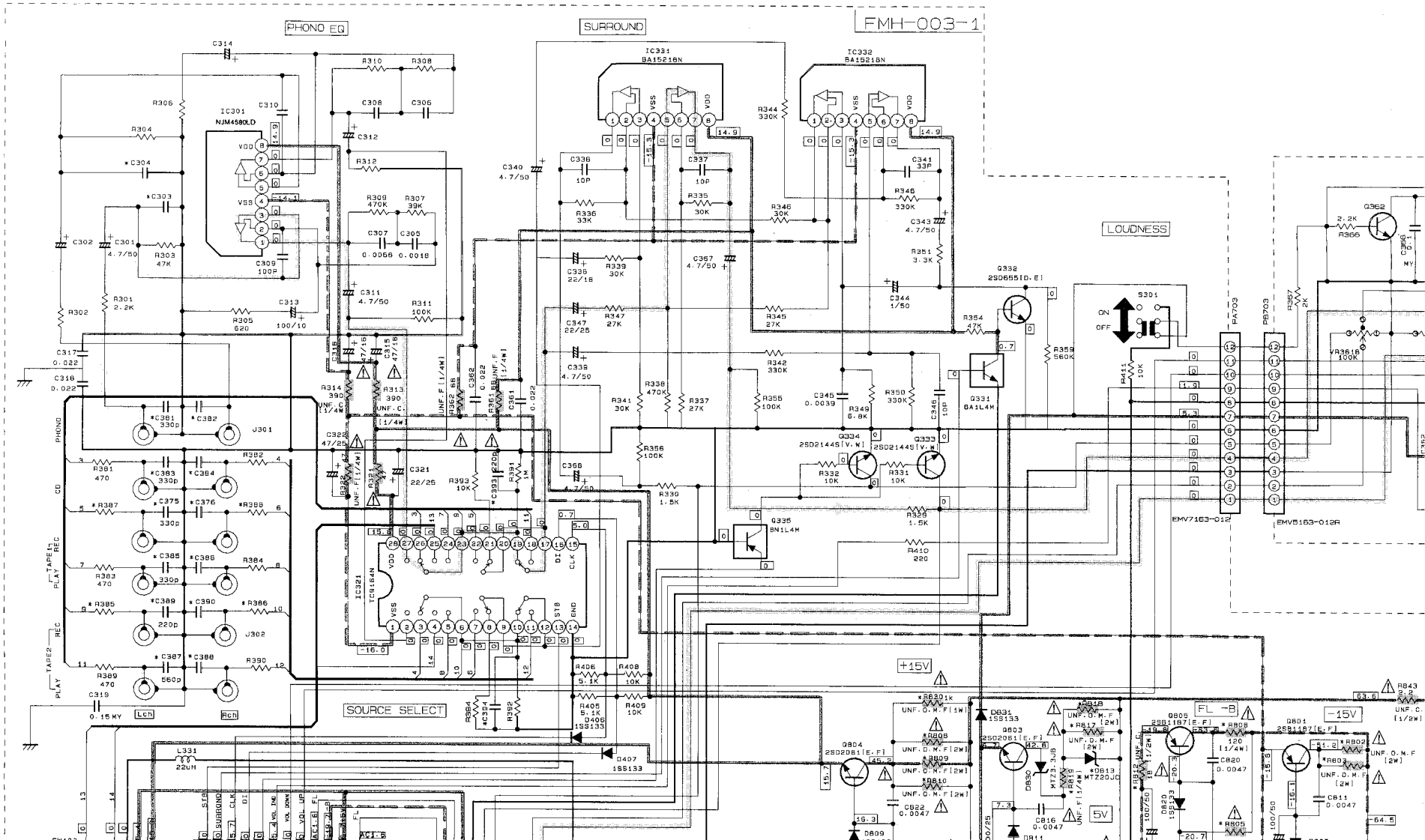


Schematic Diagrams

(1) Audio Section

Notes:

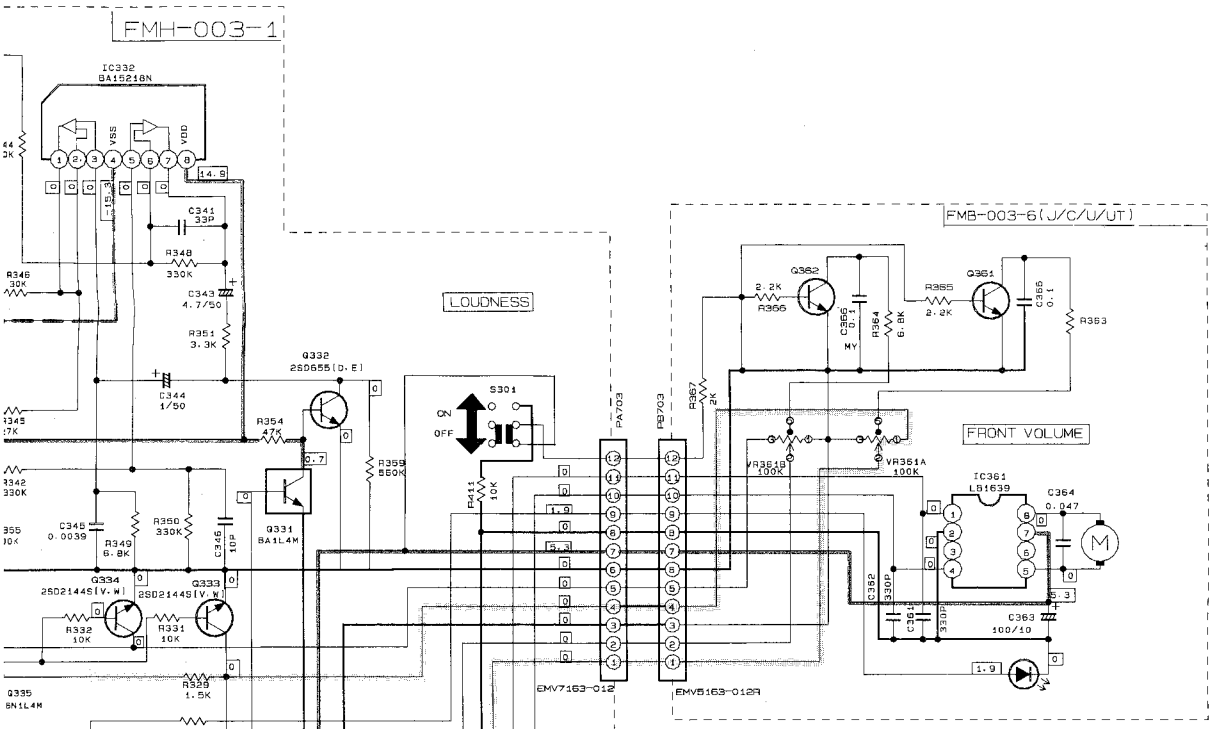
1. ——— indicates +B power supply.
2. - - - - indicates –B power supply.
3. ——— indicates main path.
4. When replacing the parts in the sha
   marked with ⚠, be sure to use the
   safety.
5. The design and contents are subjec

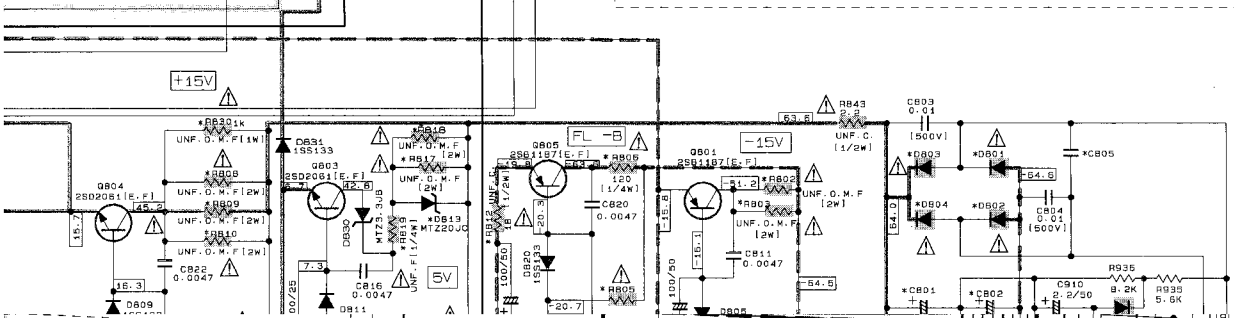


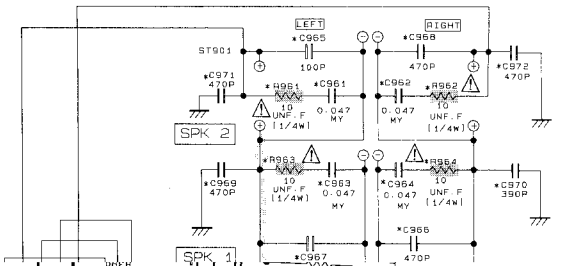
Notes:

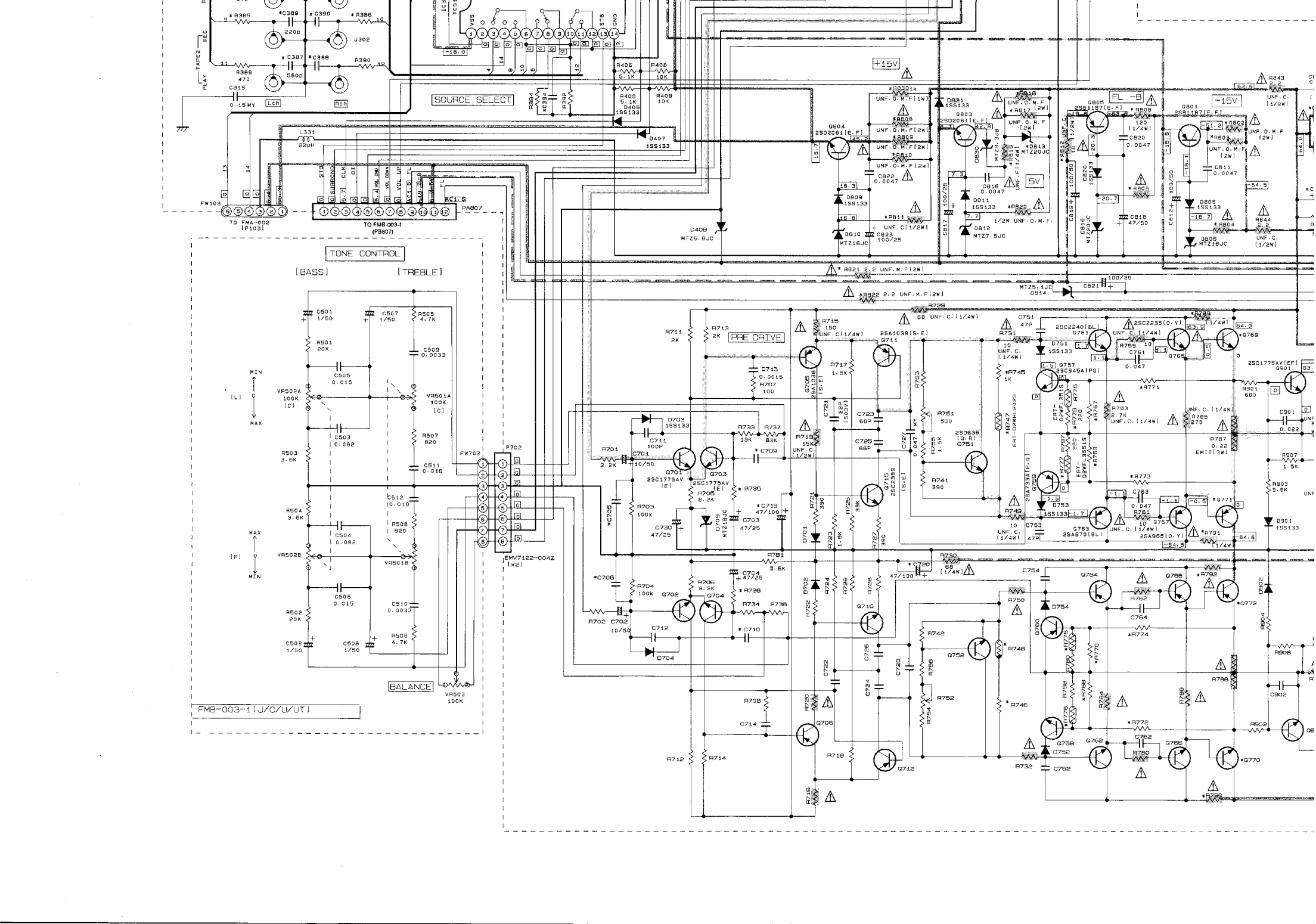
1. ▭ indicates +B power supply.
2. ▭ indicates –B power supply.
3. ▭ indicates main path.
4. When replacing the parts in the shaded are (▭) and those marked with ⚠, be sure to use the designated parts to ensure safety.
5. The design and contents are subject to change without notice.

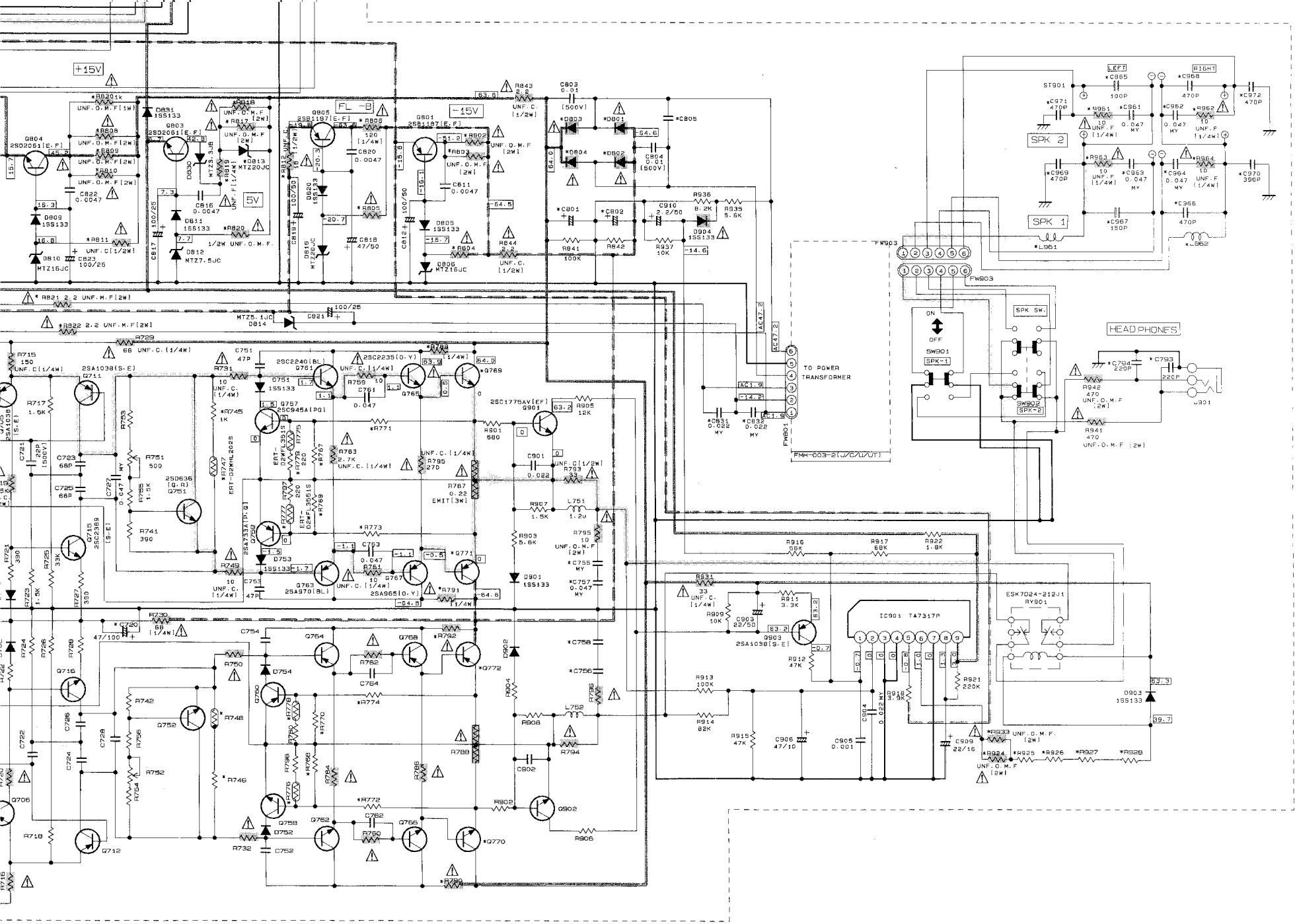
*MARK	J	C	U.UT
R385-R388	470Ω	470Ω	470Ω
R789-R792	12Ω UNF.C	10Ω UNF.F	10 UNF.F
R757-R770	56Ω	56Ω	82Ω
R771-R774	36Ω	36Ω	150Ω
R775-R776	USED	USED	NONE
R924	1.8KΩ	1.8KΩ	820Ω
R925	120Ω	120Ω	75Ω
R926	150Ω	150Ω	SHORT(W775)
R802	820Ω	820Ω	820Ω
R803	1KΩ	1KΩ	1KΩ
R804	5.6KΩ UNF O.M.F 1W	5.6KΩ UNF O.M.F 1W	5.6KΩ UNF C. 1/2W
R805	4.7KΩ UNF O.M.F 1W	4.7KΩ UNF O.M.F 1W	4.7KΩ UNF C. 1/2W
R806	UNF.C	UNF.F	UNF.F
R812	USED	USED	USED
R830	USED	USED	NONE
R808	560Ω	560Ω	180Ω
R809	560Ω	560Ω	560Ω
R810	560Ω	560Ω	560Ω
R811	8.2KΩ	8.2KΩ	8.2KΩ
R817	100Ω	100Ω	120Ω
R819	SHORT (W780)	SHORT	4.7Ω
R820	8.2KΩ	8.2KΩ	8.2KΩ
R961-R964	NONE	NONE	NONE
R818	NONE	NONE	150Ω
R821, R822	2.2Ω	2.2Ω	2.2Ω
R745, R746	NONE	NONE	USED
R747, R748	NONE	NONE	USED ERT-02MHL2025
R933	NONE	NONE	NONE
R927-R928	SHORT W748, W749	SHORT	SHORT
R779, R780	SHORT(W778, W776)	SHORT	NONE
R797, R798	SHORT(W777, W779)	SHORT	NONE
R735-R736	560Ω	560Ω	680Ω
C303, C304	100P	100P	100P
C393, C394	NONE	NONE	NONE
C375-C390	NONE	NONE	NONE
C705, C706	100P	100P	100P
C719, C720	47/100	47/100	47/63
C755, C756	0.022	0.047	0.047
C757, C758	SHORT W712, W713	USED	USED
C805	0.01/500V	0.01/500V	0.22/150V
C831, C832	USED	NONE	NONE
C961-C964	NONE	NONE	NONE
C965-C968	NONE	NONE	NONE
C969-C972	NONE	NONE	USED
C793, C794	NONE	NONE	USED
C801, C802	6800/75	6800/75	6800/75
C709, C710	10P	10P	10P
Q769, Q770	2SD2155LB(R,O)	2SD2155LB(R,O)	2SC3854LD(O,Y)
Q771, Q772	2SB1429LB(R,O)	2SB1429LB(R,O)	2SA1430LD(O,Y)
D801~D804	30D2FC	30D2FC	30DF2SFC
D813	NONE	NONE	USED
L961, L962	SHORT W709, W710	SHORT	SHORT



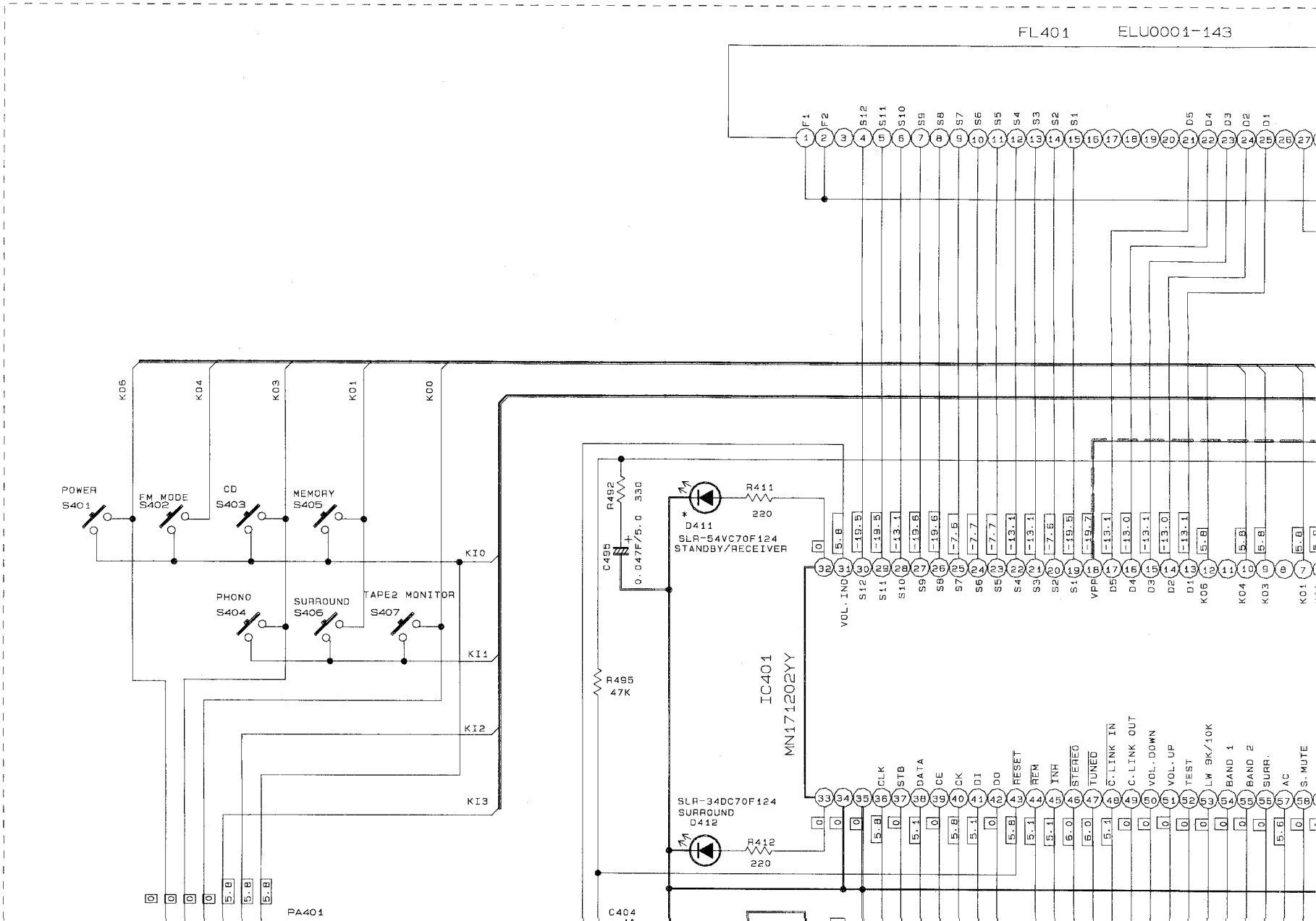


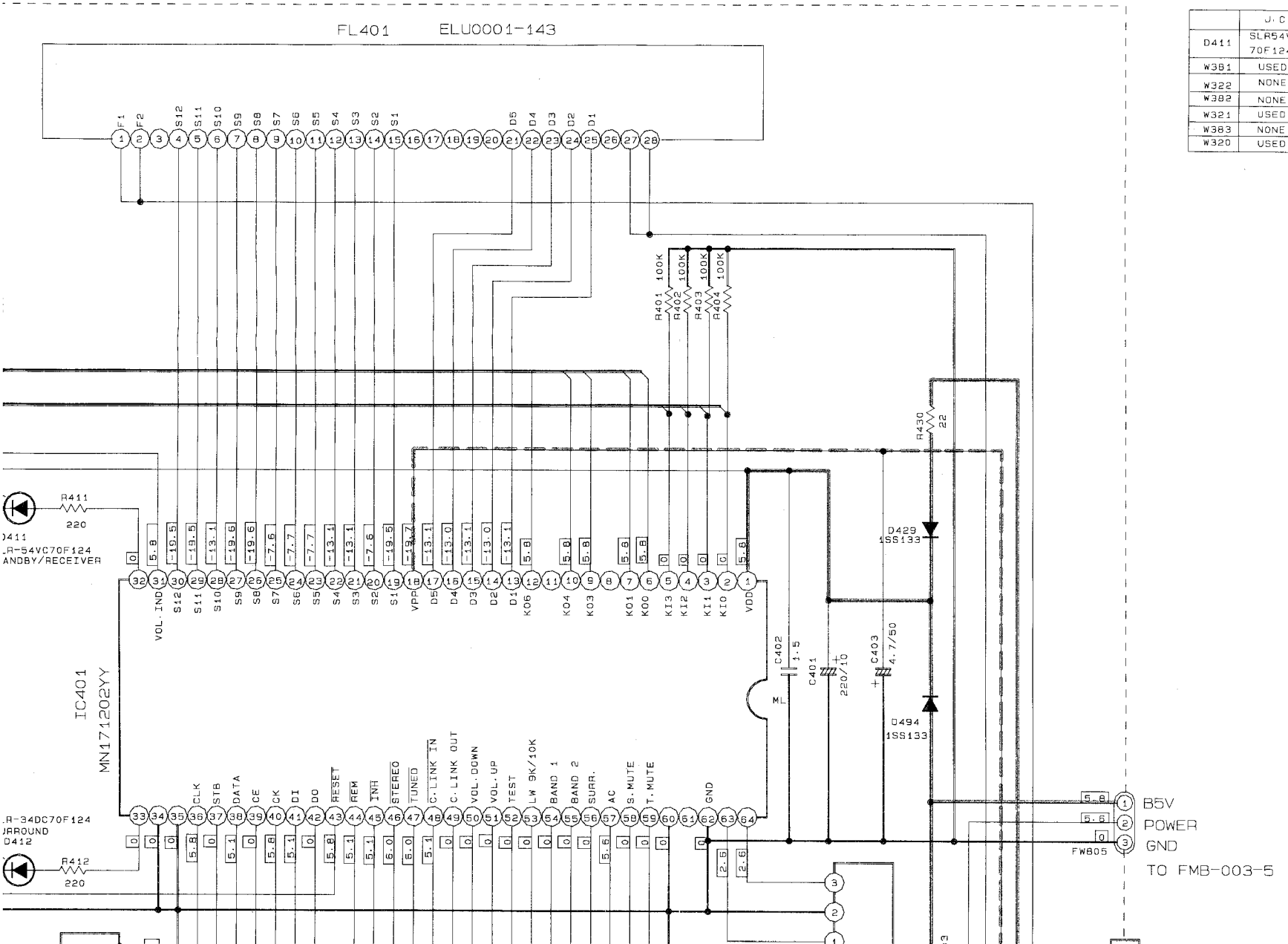



SOURCE SELECT
TONE CONTROL
[BASS]
[TREBLE]
PRE DRIVE
BALANCE
FMB-003-1(J/C/U/UT)
+15V
-15V
5V
FL -B
TO FMA-002 (P103)
TO FMB-003-1 (P8807)
EMV7122-004Z (x2)

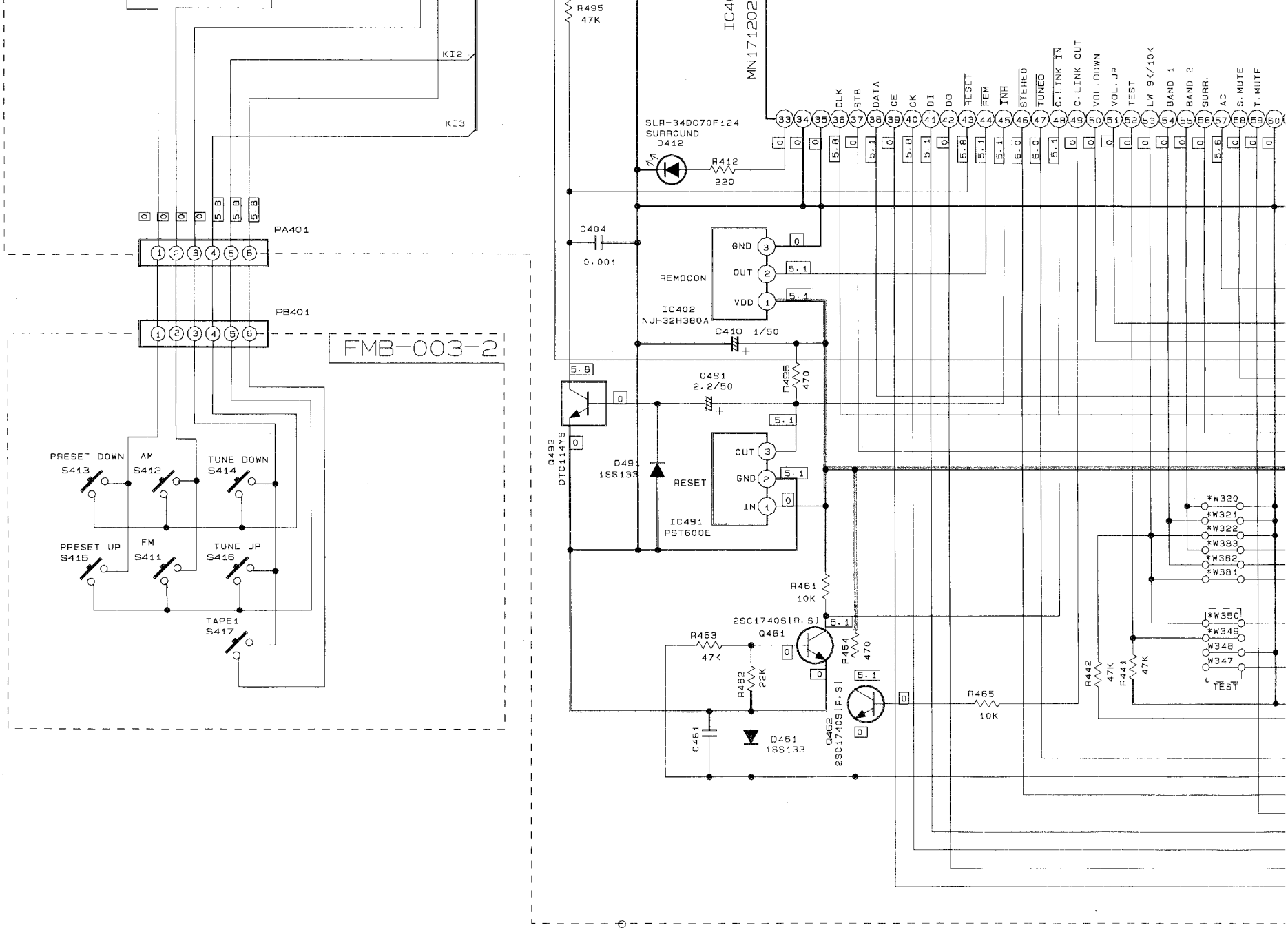

+15V
-15V
FL -B
5V
SPK 2
SPK 1
SPK SW.
HEAD PHONES
TO POWER TRANSFORMER
IC901 TA7317P
LEFT
RIGHT

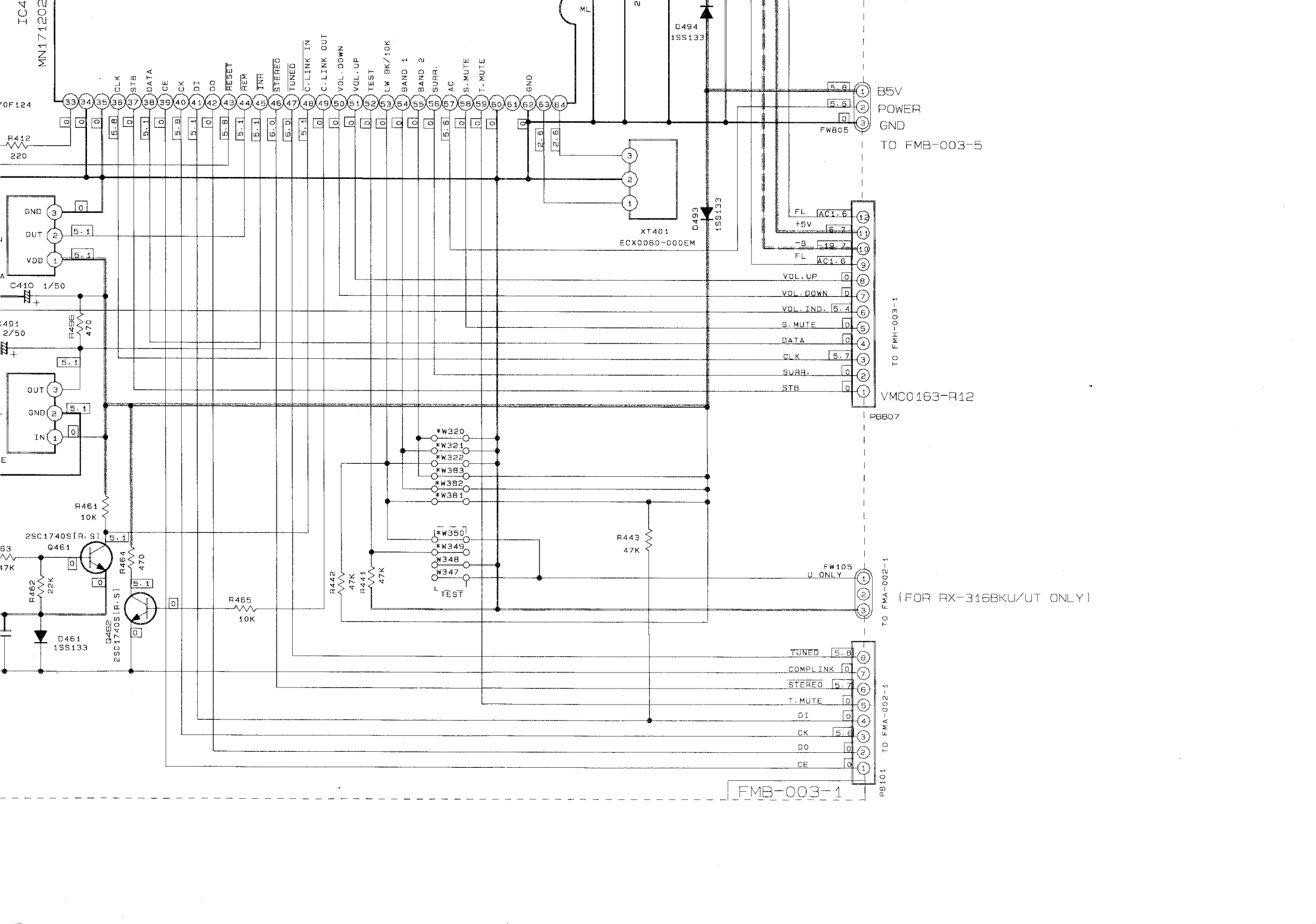
(2) System Control Section



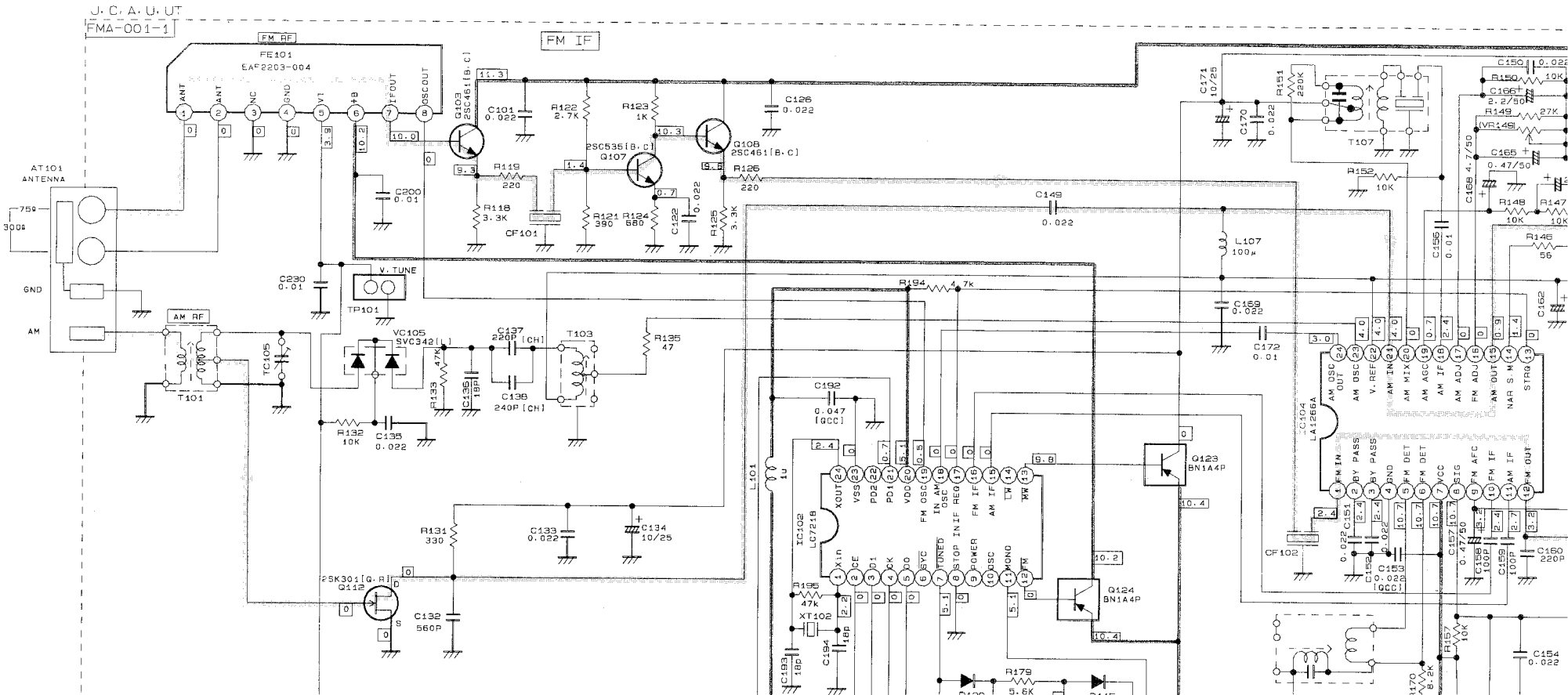


	J.C	U.UT
D411	SLR54VC 70F124	SLR54VC 70F124
W381	USED	NONE
W322	NONE	NONE
W382	NONE	USED
W321	USED	NONE
W383	NONE	NONE
W320	USED	USED


FMB-003-2
KI2
KI3
PA401
PB401
PRESET DOWN
S413
AM
S412
TUNE DOWN
S414
PRESET UP
S415
FM
S411
TUNE UP
S416
TAPE1
S417
R495
47K
IC402
MN1712022
SLA-34DC70F124
SURROUND
D412
R412
220
C404
0.001
REMOCON
GND
OUT
VDD
IC402
NJH32H380A
C410 1/50
C491
2.2/50
R496
470
Q492
DTC114YS
D491
1SS133
RESET
IC491
PST600E
R461
10K
2SC1740S[R,S]
Q461
R463
47K
R464
470
R462
22K
C461
D461
1SS133
Q462
2SC1740S[R,S]
R465
10K
R442
47K
R441
47K
TEST
CLK
STB
DATA
CE
CK
DI
DO
RESET
REM
INH
STEREO
TUNED
C-LINK IN
C-LINK OUT
VOL. DOWN
VOL. UP
TEST
LW 9K/10K
BAND 1
BAND 2
SURR.
AC
S.MUTE
T.MUTE

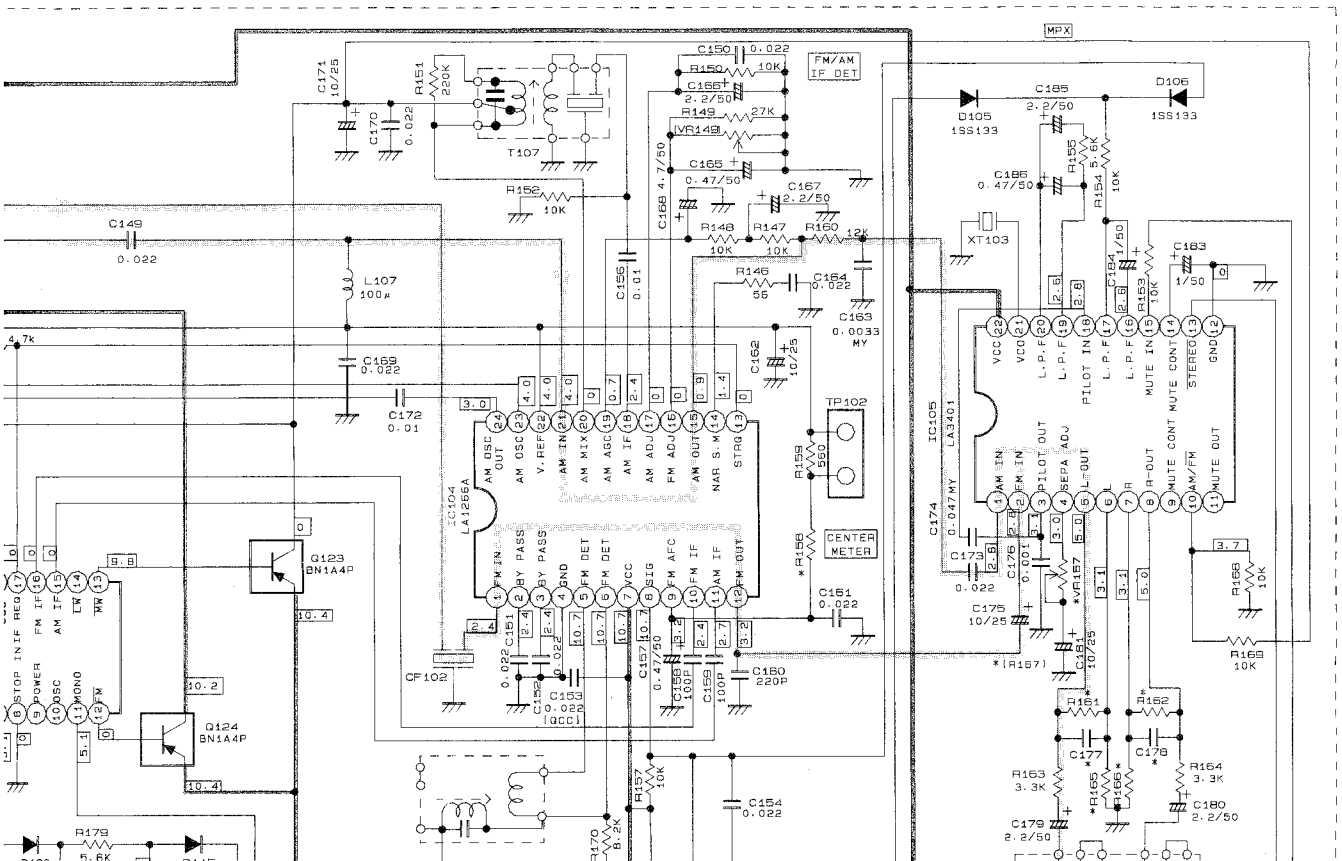

MN1712020
CLK
STB
DATA
CE
CK
DI
DO
RESET
REM
INH
STEREO
TUNED
C-LINK IN
C-LINK OUT
VOL. DOWN
VOL. UP
TEST
LW 9K/10K
BAND 1
BAND 2
SURR.
AC
S.MUTE
T.MUTE
GND
B5V
POWER
GND
TO FMB-003-5
FW805
D494
1SS133
D493
1SS133
XT401
ECX0060-000EM
FL
+5V
-B
FL
VOL. UP
VOL. DOWN
VOL. IND.
S. MUTE
DATA
CLK
SURR.
STB
TO FMH-003-1
VMC0163-R12
PB807
R412
220
C410 1/50
R436
470
R461
10K
2SC1740S(R,S)
Q461
R464
470
R462
22K
D461
1SS133
Q462
2SC1740S(R,S)
R465
10K
*W320
*W321
*W322
*W383
*W382
*W381
*W350
*W349
W348
W347
TEST
R442
47K
R441
47K
R443
47K
FW105
U ONLY
TO FMA-002-1
(FOR RX-316BKU/UT ONLY)
TUNED
COMPLINK
STEREO
T.MUTE
DI
CK
DO
CE
TO FMA-002-1
PB101
FMB-003-1

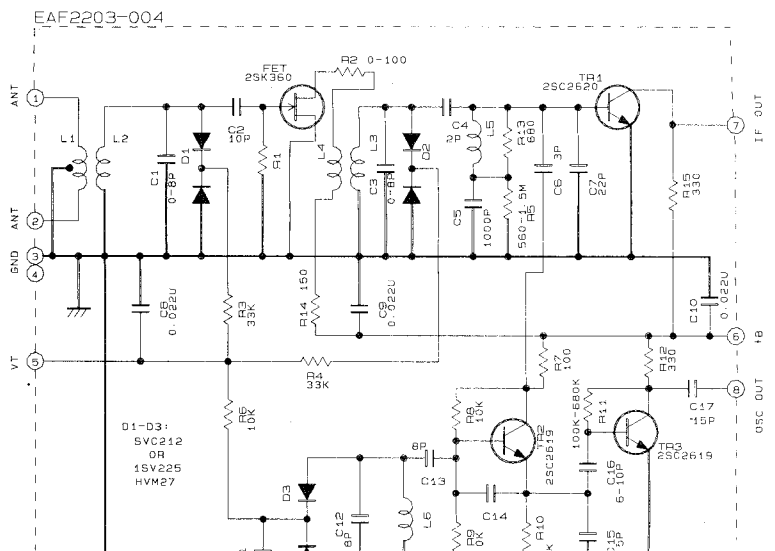
(3) Tuner Section

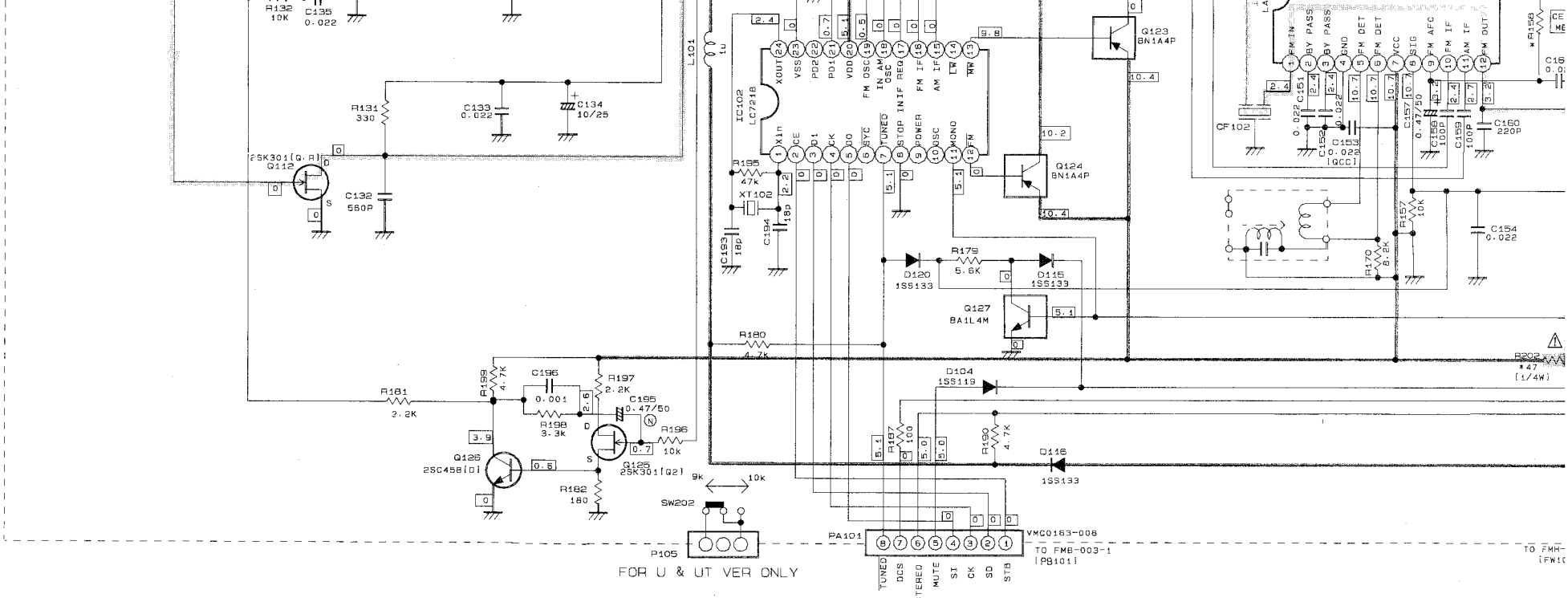


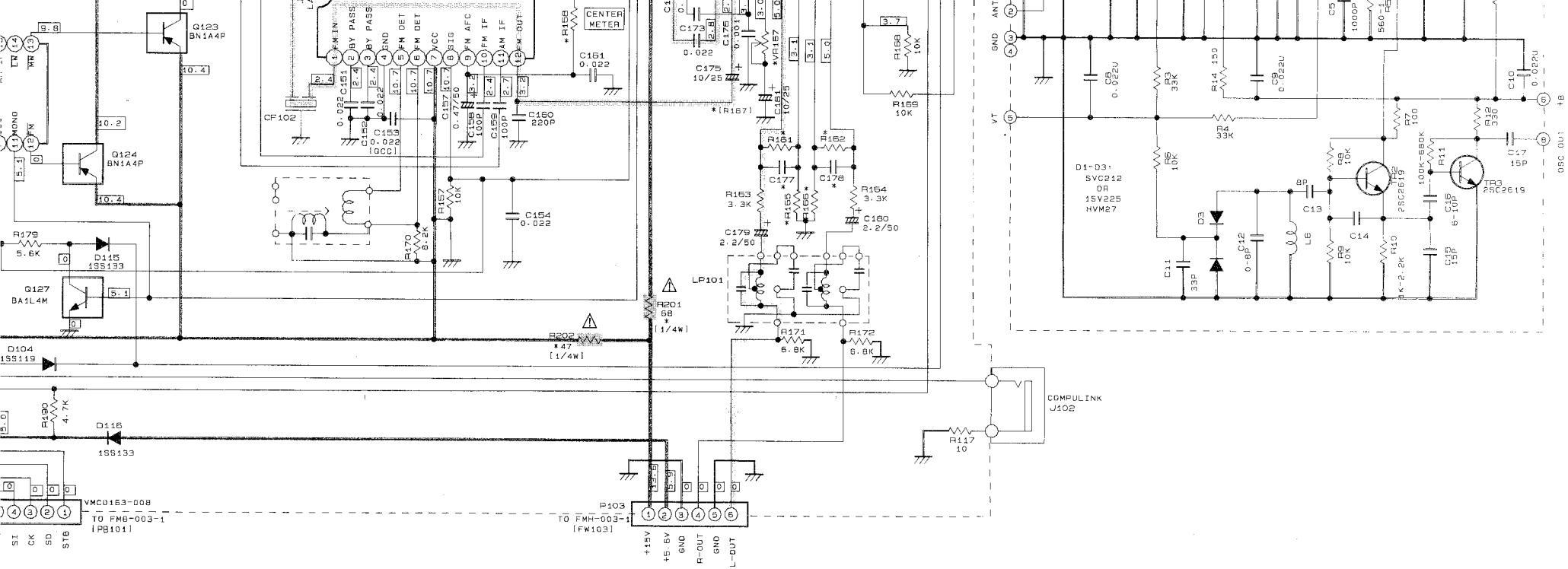
*MARK

	J	C	A	U	UT
R158	18K	18K	33K	33K	33K
R161·162	120K	120K	180K	120K	120K
R165·166	180K	180K	270K	180K	180K
R167	47K	47K	–	47K	47K
VR167	–	–	100K	–	–
R201	UNF.C	UNF.C	UNF.F	UNF.F	UNF.F
R202	UNF.C	UNF.C	UNF.F	UNF.F	UNF.F
C177·178	560P	560P	270P	560P	560P





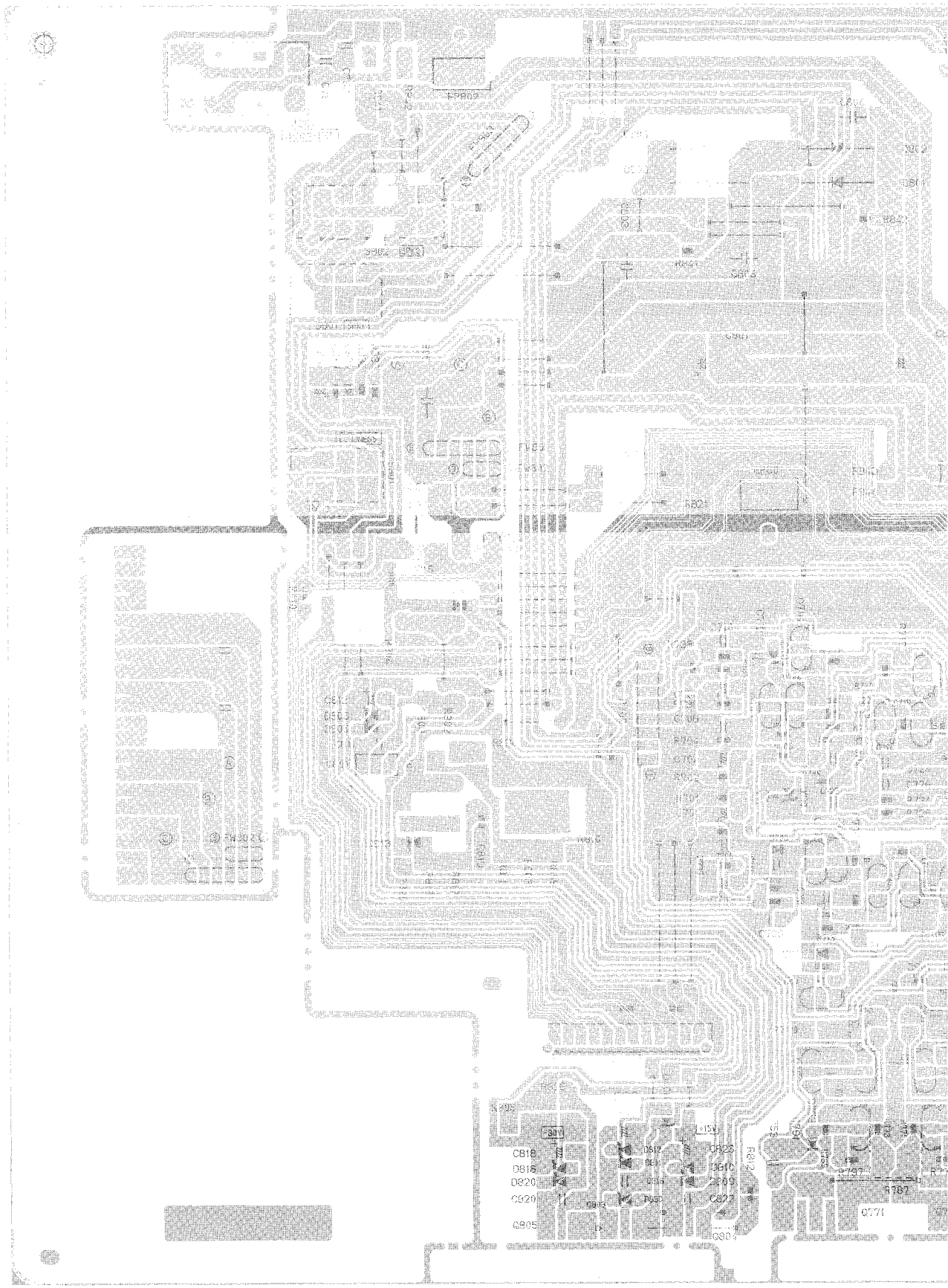

IC102
LC7218
Q123
BN1A4P
Q124
BN1A4P
Q127
BA1L4M
Q112
2SK301[Q,R]
Q125
2SK301[Q2]
Q126
2SC458[O]
D120
1SS133
D115
1SS133
D104
1SS119
D116
1SS133
R131
330
R132
10K
C132
560P
C133
0.022
C134
10/25
C135
0.022
R179
5.6K
R180
4.7K
R181
3.2K
R195
47k
R196
10k
R197
2.2K
R198
3.3k
R199
4.7K
R150
4.7K
R167
100
R170
8.2K
C193
18p
C194
18p
C195
0.47/50
C196
0.001
XT102
SW202
9k
10k
P105
PA101
VMC0163-008
TO FMB-003-1
[PB101]
FOR U & UT VER ONLY
TUNED
DCS
STEREO
MUTE
SI
CK
SD
STB

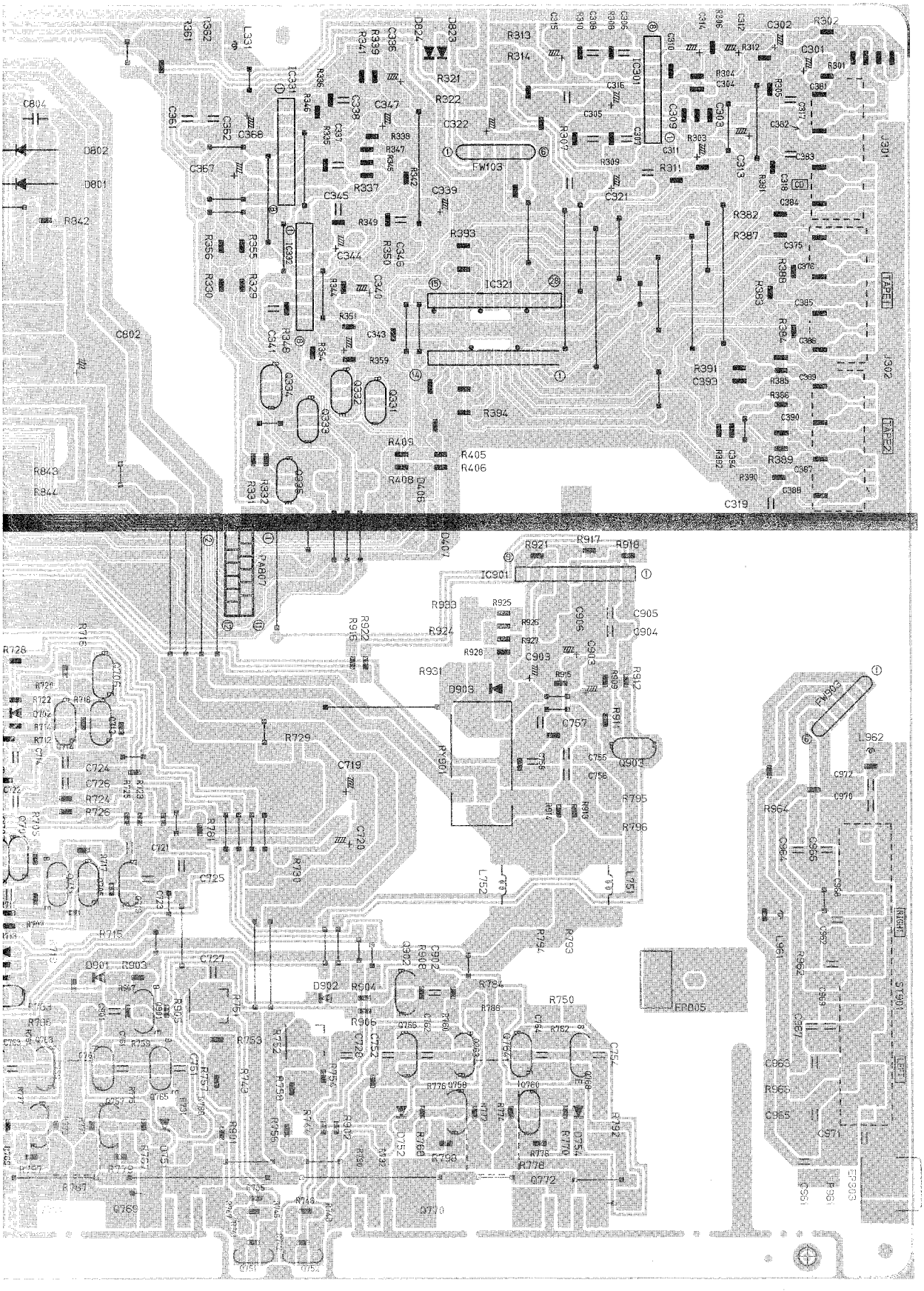

Q123
BN1A4P
Q124
BN1A4P
Q127
BA1L4M
D115
1SS133
D104
1SS119
D116
1SS133
R179
5.6K
R190
4.7K
R201
68
*
[1/4W]
R202
*47
[1/4W]
R157
10K
R170
6.2K
C154
0.022
CF102
C151
0.022
C152
0.022
C153
0.022
[GCC]
C157
0.47/50
C158
100P
C159
100P
C160
220P
R158
*
CENTER
METER
C151
0.022
C173
0.022
C175
10/25
*(R167)
C174
10/25
*VR157
R161
*
R162
*
C177
*
C178
*
R163
3.3K
R164
3.3K
*R165
*R166
C179
2.2/50
C180
2.2/50
LP101
R171
6.8K
R172
6.8K
R168
10K
R169
10K
R117
10
COMPULINK
J102
P103
TO FMH-003-1
[FW103]
+15V
+5.6V
GND
R-OUT
GND
L-OUT
VMC0163-008
TO FM8-003-1
[PB101]
SI
CK
SD
STB
ANT
GND
VT
+B
OSC OUT
C5
1000P
C8
0.022U
C9
0.022U
C10
0.022U
R3
33K
R4
33K
R14
150
R6
10K
R7
100
R8
10K
R9
10K
R10
2K-2.2K
R11
100K-680K
R12
330
C11
33P
C12
0-8P
C13
8P
C14
C15
15P
C16
6-10P
C17
15P
L6
D3
TR2
2SC2619
TR3
2SC2619
D1-D3:
SVC212
OR
1SV225
HVM27

(No. 20500)

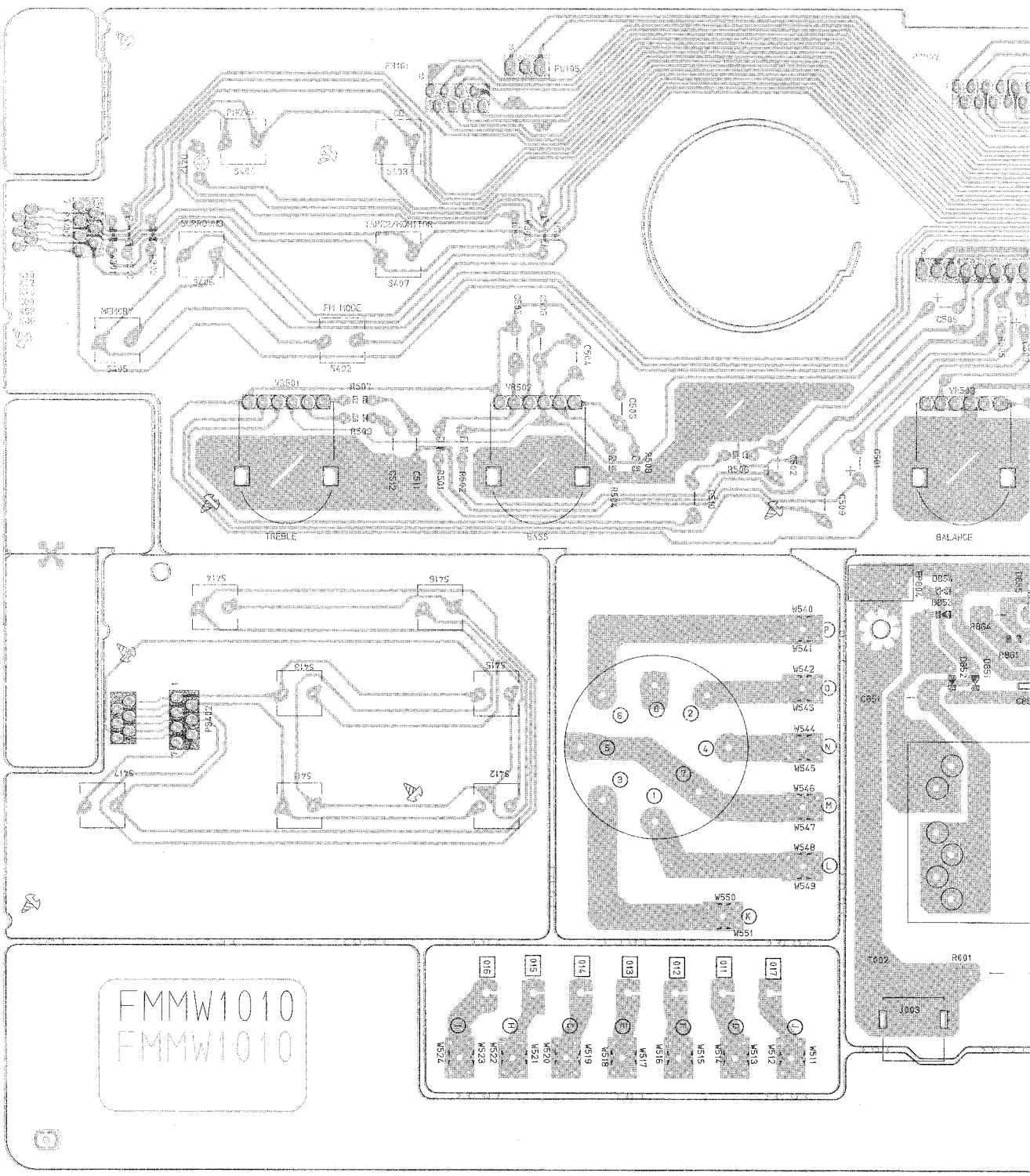
Printed Circuit Boards

Amplifier & Selector PC Board (FMH-003)





■ Front, Tone Control & Power Supply PC Board (FMB-003)



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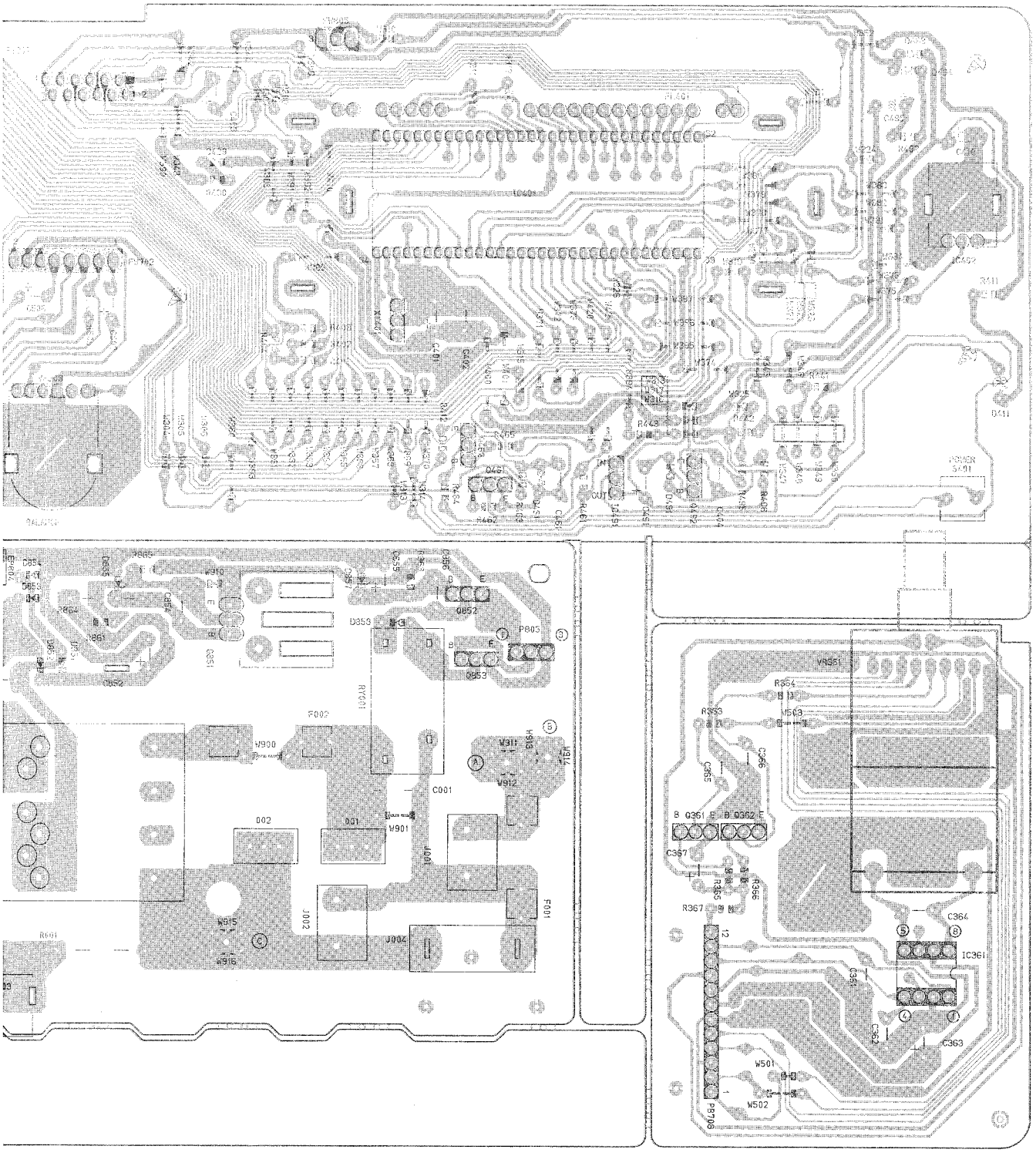
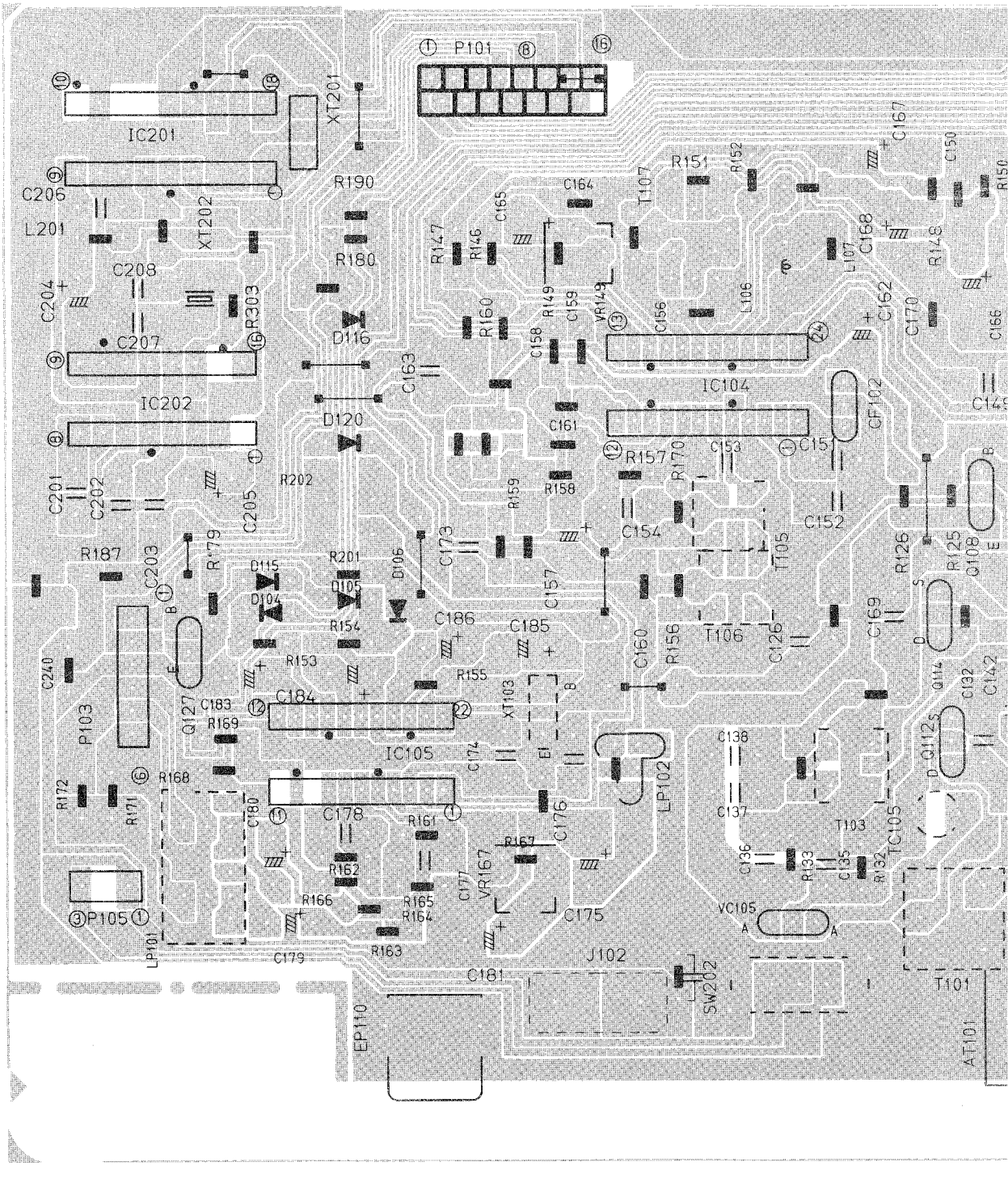
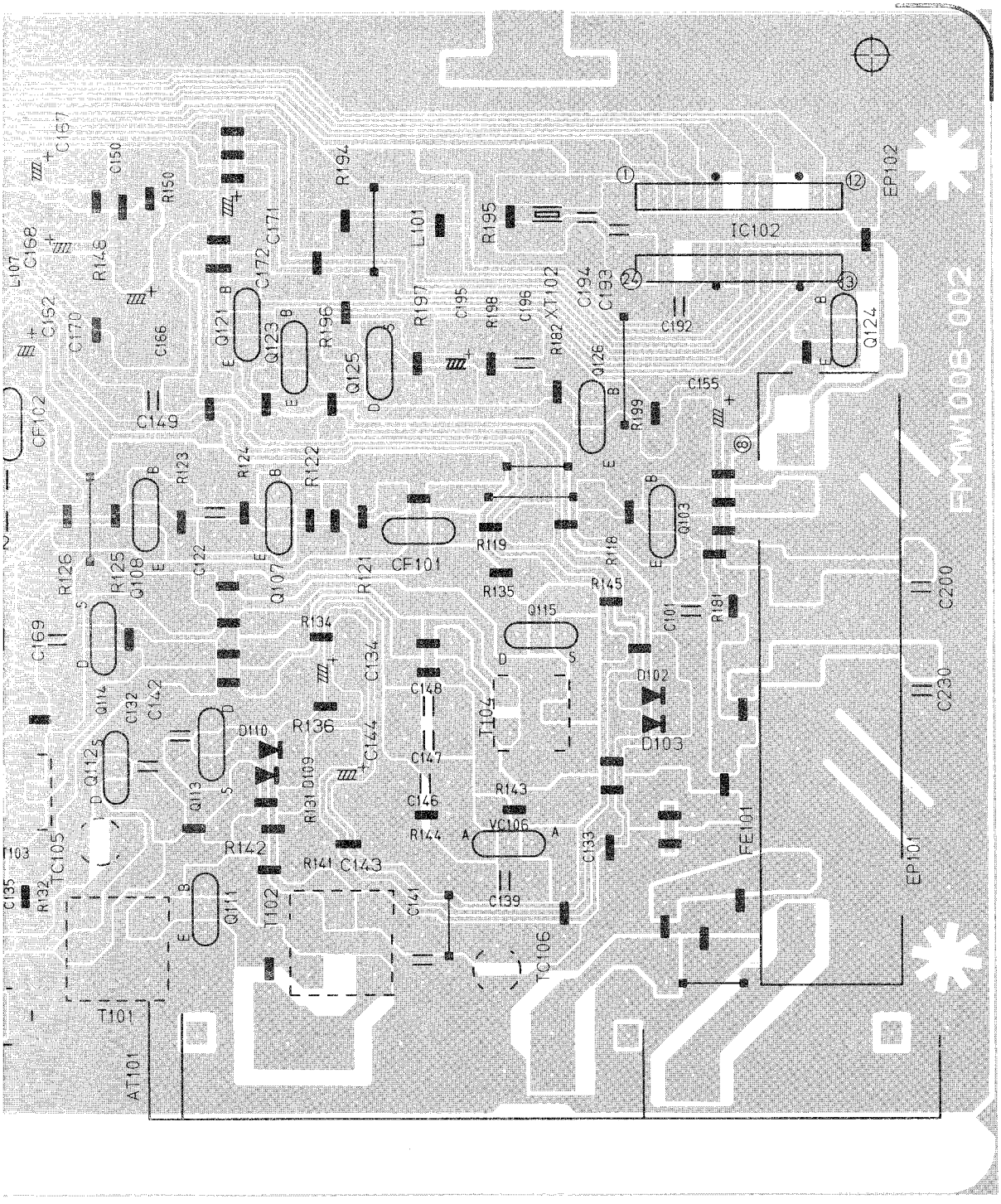


Tuner PC Board (FMA-002)




FMW100B-002
IC102
EP102
EP101
FE101
AT101
CF101
CF102
T101
T102
T104
TC105
TC106
VC106
D102
D103
D109
D110
Q103
Q107
Q108
Q111
Q112
Q113
Q114
Q115
Q121
Q123
Q124
Q125
Q126
XT102
C101
C102
C107
C122
C132
C133
C134
C135
C139
C141
C142
C143
C144
C146
C147
C148
C149
C150
C152
C155
C157
C166
C167
C168
C169
C170
C171
C172
C192
C193
C194
C195
C196
C200
C230
L101
L107
R119
R121
R122
R123
R124
R125
R126
R131
R132
R134
R135
R136
R141
R142
R143
R144
R145
R146
R150
R181
R182
R194
R195
R196
R197
R198
R199

PARTS LIST

Note : All printed circuit borad assemblies are not available as service parts.

Contents

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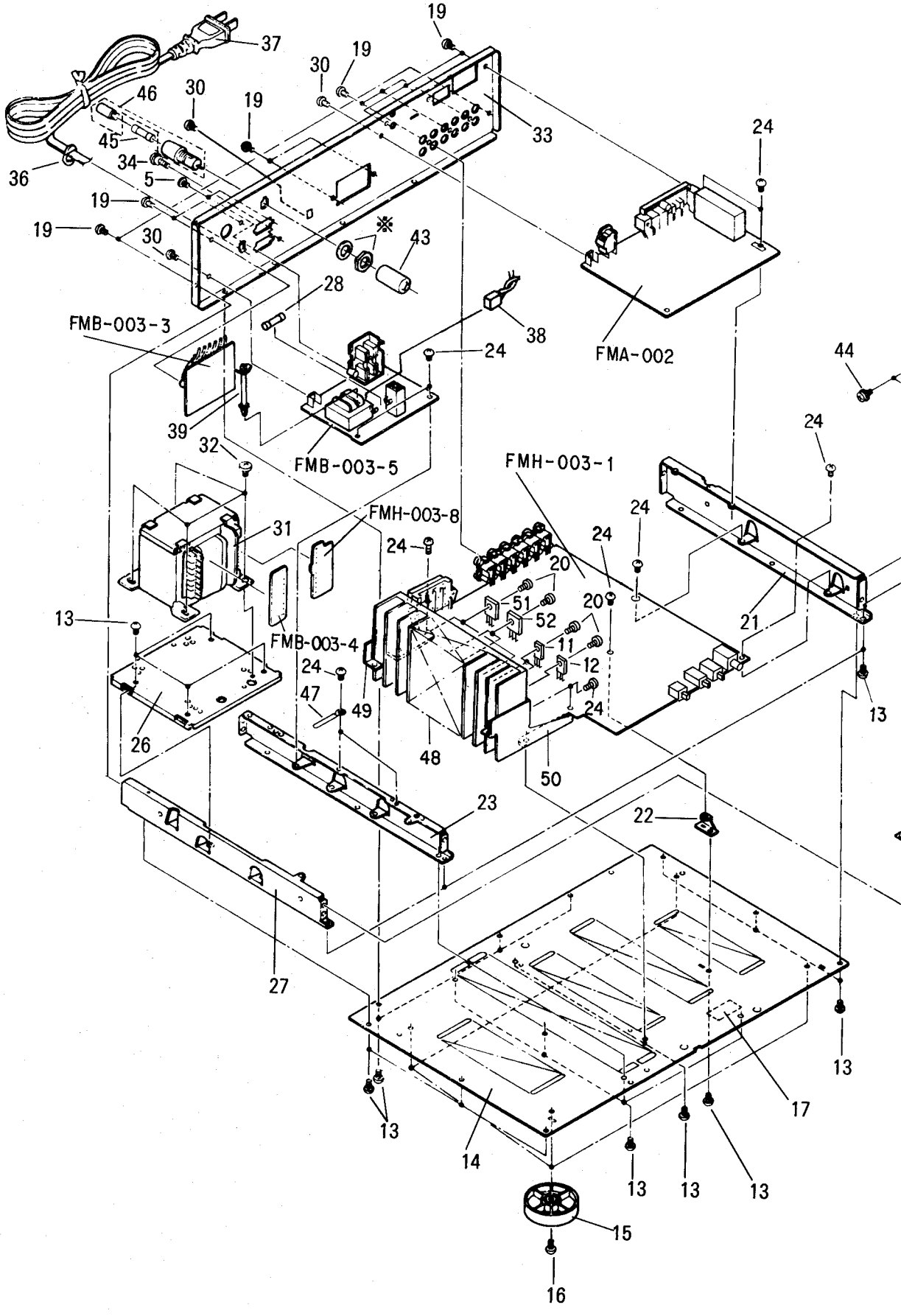
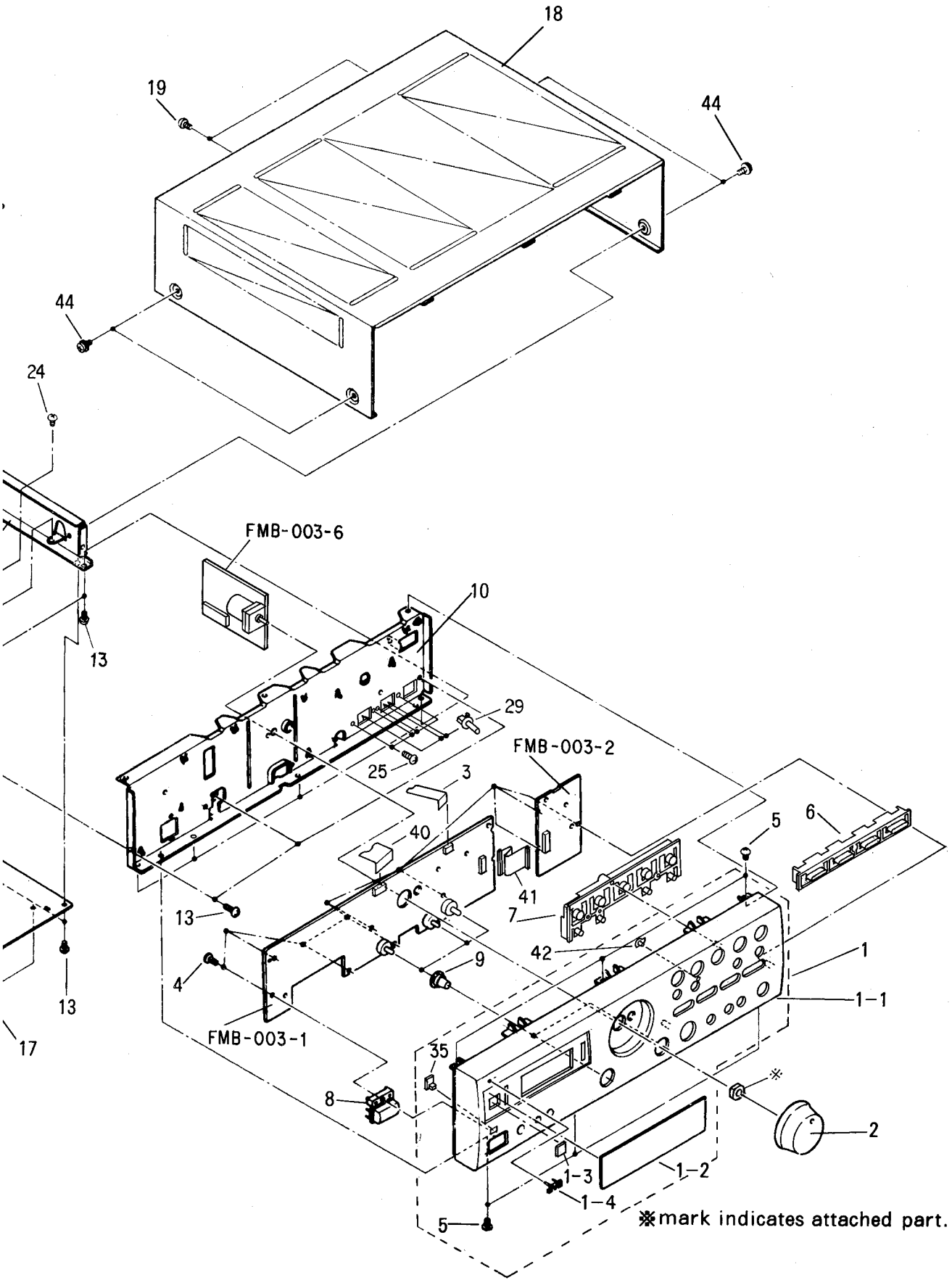
■ FMH-003 [C] Amplifier & Selector PC Board Ass'y 2-7
■ FMB-003 [B] Front,Tone Control & Power Supply PC Board Ass'y 2-11
■ FMA-002 [B] Tuner PC Board Ass'y 2-13
Accessories List 2-15
Packing Materials and Part Numbers 2-16

General Exploded View and Parts List

Symbol No. M 1 M M




18
19
44
44
24
FMB-003-6
10
13
29
25
3
FMB-003-2
40
5
6
41
7
13
42
1
9
4
1-1
13
17
FMB-003-1
35
8
※
2
1-3
1-2
1-4
5
※mark indicates attached part.

■ PARTS LIST

Symbol No. M 1 M M

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	1	EFP-RX316BKU(S)	FRONT PANEL ASS'Y	1		
	1-1	FMJC1007-003	FRONT PANEL	1		
	1-2	E308268-009SM	WINDOW SCREEN	1		
	1-3	E72436-006	REMORT SCREEN	1		
	1-4	VJD5429-001	JVC MARK	1		
	2	E309107-001SM	VOLUME KNOB	1		
	3	FMWF1208-23TTA	FLAT WIRE ASSY	1		
	4	SDSF2608Z	SCREW	9		
	5	SDSG3008M	TAPPING SCREW	8		
	6	FMXP3007-001	PUSH BUTTON	1		
	7	FMXP2001-001	PUSH BUTTON	1		
	8	FMXP4004-003	POWER BUTTON	1		
	9	FMXL4006-001	BALANCE KNOB	3		
	10	FMKL1001-001	FRONT BRACKET	1		
	11	2SD2061F(E,F)	SI.TRANSISTOR	2		
	12	2SB1187F(E,F)	SI.TRANSISTOR	1		
	13	SBSG3008Z	TAPPING SCREW	28		
	14	E102371-005SM	CHASSIS BASE	1		
	15	VJF4039-00F	FOOT	4		
	16	SBST3010Z	TAPPING SCREW	4		
	17	E70115-002	CAUTION LABEL	1		
	18	E206967-001	METAL COVER	1		
	19	SBSG3008M	TAPPING SCREW	14		
	20	E73525-003	SCREW	7		
	21	E206957-001SM	SIDE BRACKET	1		
	22	E68587-222SM	BRACKET PLATE	1		
	23	E206958-004SM	CENTER BRACKET	1		
	24	SBSG3008CC	TAPPING SCREW	11		
	25	SBST3006Z	TAPPING SCREW	6		
	26	E206959-003SM	TRANSFORMER BRACKET	1		
	27	E206956-001SM	SIDE BRACKET	1		
⚠	28	QMF51A2-R10S	FUSE	1	F002(250V/100mA)	
	29	E407321-002SM	PUSH BUTTON	3		
	30	SBST3006M	TAPPING SCREW	3		
⚠	31	ETP1200-55FAJ	POWER TRANSFORMER	1		
	32	E65389-002	SPECIAL SCREW	4		
	33	E207332-051SM	REAR PANEL	1		
	34	E73562-003	SPECIAL SCREW	1		
	35	FMJK4005-001	INDICATOR LENS	1		
⚠	36	QHS3876-162	CORD STOPPER	1		
⚠	37	QMP7520-200	POWER CORD	1		
	38	EWS282-001	SOCKET WIRE	1		
	39	QHW4110-001	WIRE CLAMP	1		
	40	FMWF1212-35TTB	FLAT WIRE ASSY	1		
	41	FMWH0001-001	FLAT WIRE ASSY	1		
	42	FMJK4004-001	INDICATOR LENS	1		
	43	E69291-001	FUSE COVER	1		
	44	E61660-004	SPECIAL SCREW	4		
⚠	45	QMF51E2-2R0	FUSE	1	F001(250V/2.0A)	
⚠	46	QMG0301-003	FUSE HOLDER	1		
	47	VKZ4001-111S	WIRE CLAMP	2		
	48	E308271-003	HEAT SINK	1		
	49	E307874-002SM	HEAT SINK BRACKET	1		

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	50	E307874-001SM	HEAT SINK BRACKET	1		
	51	2SA1490LD(O,Y)	SI.TRANSISTOR	2		
	52	2SC3854LD(O,Y)	SI.TRANSISTOR	2		
	-	E75139-003	Z LABEL	1		
	-	FMND3007-001	RATING LABEL	1		UT

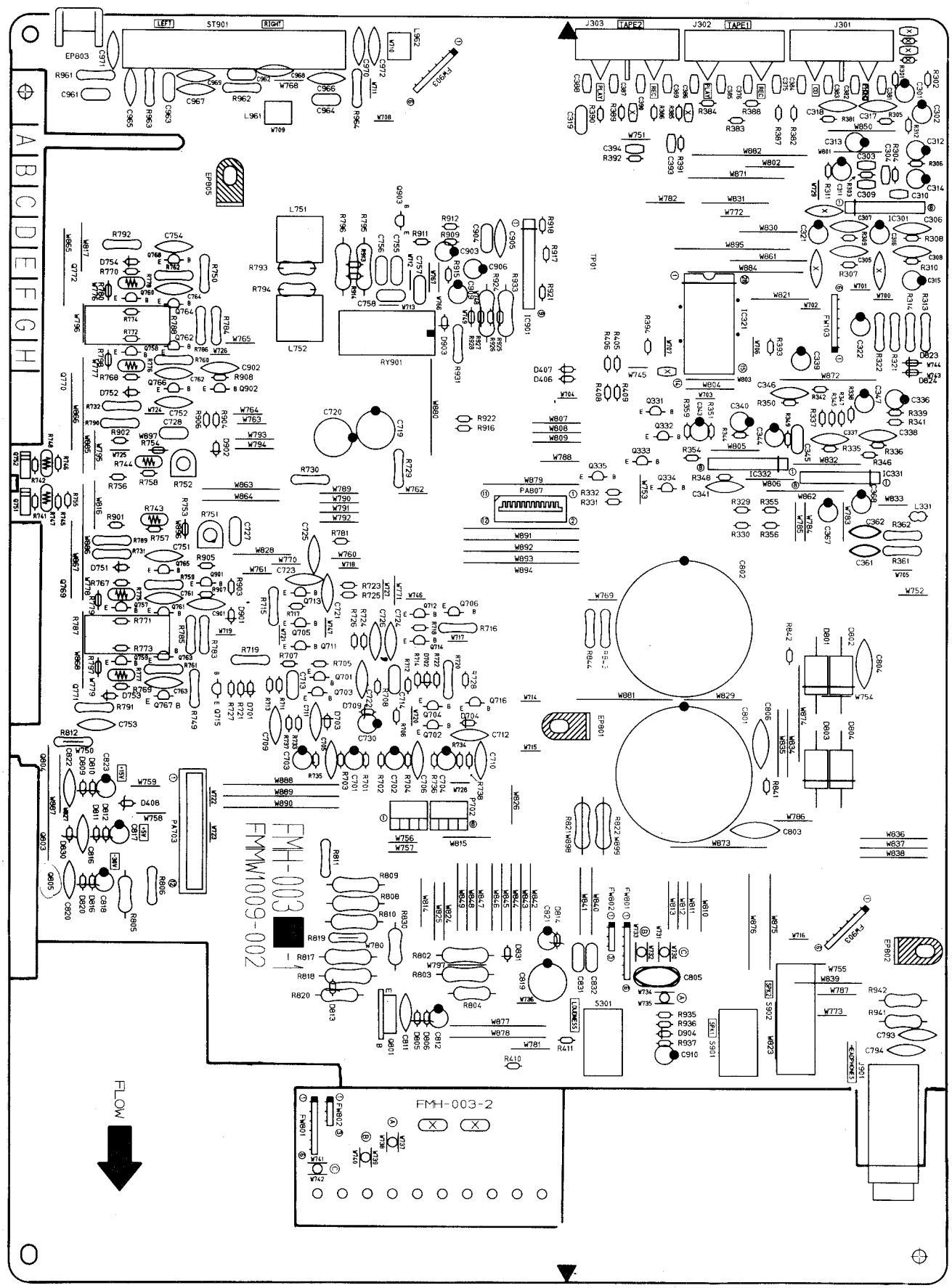
The Marks for Designated Areas

U ..... Universal UT .... Taiwan

No mark indicates all area.

Printed Circuit Board Ass'y and Parts List

■ FMH-003 [C] Amplifier & Selector PC Board Ass'y



TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q331	BA1L4M	DIGITAL TRA NEC	
	Q332	2SD655(E,F)	SI.TRANSIST HITACHI	
	Q333	2SD2144S(VW)	SI.TRANSIST ROHM	
	Q334	2SD2144S(VW)	SI.TRANSIST ROHM	
	Q335	BN1L4M	D.TR.I.M	
	Q701	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q702	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q703	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q704	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q705	2SA1038(R,S)	SI.TRANSIST ROHM	
	Q706	2SA1038(R,S)	SI.TRANSIST ROHM	
	Q711	2SA1038(R,S)	SI.TRANSIST ROHM	
	Q712	2SA1038(R,S)	SI.TRANSIST ROHM	
	Q715	2SC2389(S,E)	SI.TRANSIST ROHM	
	Q716	2SC2389(S,E)	SI.TRANSIST ROHM	
	Q751	2SD636	SI.TRANSIST MATSUSHITA	
	Q752	2SD636	SI.TRANSIST MATSUSHITA	
	Q757	2SC945A	SI.TRANSIST NEC	
	Q758	2SC945A	SI.TRANSIST NEC	
	Q759	2SA733A(P,K)	SI.TRANSIST NEC	
	Q760	2SA733A(P,K)	SI.TRANSIST NEC	
	Q761	2SC2240(BL)	SI.TRANSIST	
	Q762	2SC2240(BL)	SI.TRANSIST	
	Q763	2SA970(GR)	SI.TRANSIST TOSHIBA	
	Q764	2SA970(GR)	SI.TRANSIST TOSHIBA	
	Q765	2SC2235(O,Y)	SI.TRANSIST TOSHIBA	
	Q766	2SC2235(O,Y)	SI.TRANSIST TOSHIBA	
	Q767	2SA965(Y)	SI.TRANSIST TOSHIBA	
	Q768	2SA965(Y)	SI.TRANSIST TOSHIBA	
	Q801	2SB1187(F,G)	SI.TRANSIST ROHM	
	Q901	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q902	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q903	2SA1038(R,S)	SI.TRANSIST ROHM	

I. C. S.

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC301	NJM4580LD	I.C(MONO-AN DAINICHI	
	IC321	TC9164N	I.C(DIGI-MO TOSHIBA	
	IC331	BA15218N	I.C(MONO-AN ROHM	
	IC332	BA15218N	I.C(MONO-AN ROHM	
	IC901	TA7317P	I.C(MONO-AN TOSHIBA	

DIODES

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D406	1SS133	SI.DIODE ROHM	
	D407	1SS133	SI.DIODE ROHM	
	D408	MTZ6.8JC	ZENER DIODE ROHM	
	D701	1SS133	SI.DIODE ROHM	
	D702	1SS133	SI.DIODE ROHM	
	D703	1SS133	SI.DIODE ROHM	
	D704	1SS133	SI.DIODE ROHM	
	D709	MTZ18JC	ZENER DIODE ROHM	
	D751	1SS133	SI.DIODE ROHM	
	D752	1SS133	SI.DIODE ROHM	
	D753	1SS133	SI.DIODE ROHM	
	D754	1SS133	SI.DIODE ROHM	
⚠	D801	30DF2SFC	SI.DIODE NIHONINTER	
⚠	D802	30DF2SFC	SI.DIODE NIHONINTER	
⚠	D803	30DF2SFC	SI.DIODE NIHONINTER	
⚠	D804	30DF2SFC	SI.DIODE NIHONINTER	
	D805	1SS133	SI.DIODE ROHM	
	D806	MTZ16JC	ZENER DIODE ROHM	
	D809	1SS133	SI.DIODE ROHM	
	D810	MTZ16JC	ZENER DIODE ROHM	
	D811	1SS133	SI.DIODE ROHM	
	D812	MTZ7.5JC	ZENER DIODE ROHM	
	D813	MTZ20JC	ZENER DIODE ROHM	
	D814	MTZ5.1JC	ZENER DIODE ROHM	
	D816	MTZ20JC	ZENER DIODE ROHM	
	D820	1SS133	SI.DIODE ROHM	
	D830	MTZ3.3JB	ZENER DIODE ROHM	
	D831	1SS133	SI.DIODE ROHM	
	D901	1SS133	SI.DIODE ROHM	
	D902	1SS133	SI.DIODE ROHM	
	D903	1SS133	SI.DIODE ROHM	
	D904	1SS133	SI.DIODE ROHM	

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C301	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C302	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C303	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C304	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C305	QCY31HK-182Z	1800PF 50V CER.CAPACI	
	C306	QCY31HK-182Z	1800PF 50V CER.CAPACI	
	C307	QCY31HK-682Z	6800PF 50V CER.CAPACI	
	C308	QCY31HK-682Z	6800PF 50V CER.CAPACI	
	C309	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C310	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C311	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C312	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C313	QETB1AM-107	100MF 10V AL E.CAPAC	
	C314	QETB1AM-107	100MF 10V AL E.CAPAC	
	C315	QETB1CM-476	47MF 16V AL E.CAPAC	
	C316	QETB1CM-476	47MF 16V AL E.CAPAC	
	C317	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C318	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C319	QFV81HJ-154	0.15MF 50V THIN FILM	
	C321	QETB1EM-226	22MF 25V AL E.CAPAC	
	C322	QETB1EM-226	22MF 25V AL E.CAPAC	
	C336	QETB1CM-226	22MF 16V E.CAPACITO	
	C337	QCS21HJ-100	10PF 50V CER.CAPACI	
	C338	QCS21HJ-100	10PF 50V CER.CAPACI	
	C339	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C340	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C341	QCS31HJ-330Z	33PF 50V CER.CAPACI	
	C343	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C344	QETB1HM-105	1MF 50V AL E.CAPAC	
	C345	QFLB1HJ-392	3900PF 50V MYLAR CAPA	
	C346	QCS21HJ-100	10PF 50V CER.CAPACI	
	C347	QETB1EM-226	22MF 25V AL E.CAPAC	
	C361	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C362	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C367	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C368	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C701	QETB1HM-106	10MF 50V E.CAPACITO	
	C702	QETB1HM-106	10MF 50V E.CAPACITO	
	C703	QETB1EM-476	47MF 25V AL E.CAPAC	
	C704	QETB1EM-476	47MF 25V AL E.CAPAC	
	C705	QCS21HJ-101A	100PF 50V CER.CAPACI	
	C706	QCS21HJ-101A	100PF 50V CER.CAPACI	
	C709	QCS21HJ-100	10PF 50V CER.CAPACI	
	C710	QCS21HJ-100	10PF 50V CER.CAPACI	
	C711	QCS21HJ-101A	100PF 50V CER.CAPACI	
	C712	QCS21HJ-101A	100PF 50V CER.CAPACI	
	C713	QFLB1HJ-152	1500PF 50V MYLAR CAPA	
	C714	QFLB1HJ-152	1500PF 50V MYLAR CAPA	
	C719	QETB1JM-476	47MF 63V AL E.CAPAC	
	C720	QETB1JM-476	47MF 63V AL E.CAPAC	
	C721	QCS22HJ-220	22PF 500V CER.CAPACI	
	C722	QCS22HJ-220	22PF 500V CER.CAPACI	
	C723	QCS21HJ-680A	68PF 50V CER.CAPACI	
	C724	QCS21HJ-680A	68PF 50V CER.CAPACI	
	C725	QCS21HJ-680A	68PF 50V CER.CAPACI	
	C726	QCS21HJ-680A	68PF 50V CER.CAPACI	
	C727	QFLB1HK-473	0.047MF 50V MYLAR CAPA	
	C728	QFLB1HK-473	0.047MF 50V MYLAR CAPA	
	C730	QETB1EM-476	47MF 25V AL E.CAPAC	
	C751	QCS22HJ-470A	47PF 500V CER.CAPACI	
	C752	QCS22HJ-470A	47PF 500V CER.CAPACI	
	C753	QCS22HJ-470A	47PF 500V CER.CAPACI	
	C754	QCS22HJ-470A	47PF 500V CER.CAPACI	
	C755	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	
	C756	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	
	C757	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	
	C758	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	
	C761	QCF21HP-473A	0.047MF 50V CER.CAPACI	
	C762	QCF21HP-473A	0.047MF 50V CER.CAPACI	
	C763	QCF21HP-473A	0.047MF 50V CER.CAPACI	
	C764	QCF21HP-473A	0.047MF 50V CER.CAPACI	
	C801	FMEW8001-688E	E.CAPA	
	C802	FMEW8001-688E	E.CAPA	
	C803	QCE22HP-103A	0.01MF 500V CER.CAPACI	
	C804	QCE22HP-103A	0.01MF 500V CER.CAPACI	
	C805	QFN82CJ-224	0.22MF 160V MYLAR CAPA	
	C811	QCF21HP-472	4700PF 50V CER.CAPACI	
	C812	QETB1HM-107	100MF 50V E.CAPACITO	
	C816	QCF21HP-472	4700PF 50V CER.CAPACI	
	C817	QETB1EM-107	100MF 25V AL E.CAPAC	
	C818	QETB1HM-476	47MF 50V E.CAPACITO	
	C819	QETB1HM-107	100MF 50V E.CAPACITO	
	C820	QCF21HP-472	4700PF 50V CER.CAPACI	
	C821	QETB1EM-107	100MF 25V AL E.CAPAC	
	C822	QCF21HP-472	4700PF 50V CER.CAPACI	
	C823	QETB1EM-107	100MF 25V AL E.CAPAC	
	C901	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C902	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C903	QETB1HM-226E	22MF 50V E.CAPACITO	
	C904	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	
	C905	QCY31HK-102Z	1000PF 50V CER.CAPACI	
	C906	QETB1AM-476	47MF 10V E.CAPACITO	
	C909	QETB1CM-226	22MF 16V E.CAPACITO	
	C910	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C969	QCS31HJ-471Z	470PF 50V CER.CAPACI	
	C970	QCS31HJ-391Z	390PF 50V CER.CAPACI	
	C971	QCS31HJ-471Z	470PF 50V CER.CAPACI	
	C972	QCS31HJ-471Z	470PF 50V CER.CAPACI	

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R301	QRD161J-222	2.2K 1/6W CARBON RES	
	R302	QRD161J-222	2.2K 1/6W CARBON RES	
	R303	QRD161J-473	47K 1/6W CARBON RES	
	R304	QRD161J-473	47K 1/6W CARBON RES	
	R305	QRD161J-621	620 1/6W CARBON RES	
	R306	QRD161J-621	620 1/6W CARBON RES	
	R307	QRD161J-393	39K 1/6W CARBON RES	
	R308	QRD161J-393	39K 1/6W CARBON RES	
	R309	QRD161J-474	470K 1/6W CARBON RES	
	R310	QRD161J-474	470K 1/6W CARBON RES	
	R311	QRD161J-104	100K 1/6W CARBON RES	
	R312	QRD161J-104	100K 1/6W CARBON RES	
⚠	R313	QRD14CJ-391SX	390 1/4W UNF.CARBON	
⚠	R314	QRD14CJ-391SX	390 1/4W UNF.CARBON	
⚠	R321	QRZ0077-470	47 1/4W FUSIBLE RE	
⚠	R322	QRZ0077-470	47 1/4W FUSIBLE RE	
	R329	QRD167J-152	1.5K 1/6W CARBON RES	
	R330	QRD167J-152	1.5K 1/6W CARBON RES	
	R331	QRD161J-103	10K 1/6W CARBON RES	
	R332	QRD161J-103	10K 1/6W CARBON RES	
	R335	QRD161J-303Y	30K 1/6W CARBON RES	
	R336	QRD161J-333	33K 1/6W CARBON RES	
	R337	QRD161J-273	27K 1/6W CARBON RES	
	R338	QRD161J-474	470K 1/6W CARBON RES	
	R339	QRD161J-303Y	30K 1/6W CARBON RES	
	R341	QRD161J-303Y	30K 1/6W CARBON RES	
	R342	QRD167J-334	330K 1/6W CARBON RES	
	R344	QRD167J-334	330K 1/6W CARBON RES	
	R345	QRD161J-273	27K 1/6W CARBON RES	
	R346	QRD161J-303Y	30K 1/6W CARBON RES	
	R347	QRD161J-273	27K 1/6W CARBON RES	
	R348	QRD167J-334	330K 1/6W CARBON RES	
	R349	QRD167J-682	6.8K 1/6W CARBON RES	
	R350	QRD167J-334	330K 1/6W CARBON RES	
	R351	QRD167J-332	3.3K 1/6W CARBON RES	
	R354	QRD161J-473	47K 1/6W CARBON RES	
	R355	QRD161J-104	100K 1/6W CARBON RES	
	R356	QRD161J-104	100K 1/6W CARBON RES	
	R359	QRD161J-564	560K 1/6W CARBON RES	
⚠	R361	QRZ0077-680	68 1/4W FUSIBLE RE	
⚠	R362	QRZ0077-680	68 1/4W FUSIBLE RE	
	R381	QRD161J-471	470 1/6W CARBON RES	
	R382	QRD161J-471	470 1/6W CARBON RES	
	R383	QRD161J-471	470 1/6W CARBON RES	
	R384	QRD161J-471	470 1/6W CARBON RES	
	R385	QRD161J-471	470 1/6W CARBON RES	
	R386	QRD161J-471	470 1/6W CARBON RES	
	R387	QRD161J-471	470 1/6W CARBON RES	
	R388	QRD161J-471	470 1/6W CARBON RES	
	R389	QRD161J-471	470 1/6W CARBON RES	
	R390	QRD161J-471	470 1/6W CARBON RES	
	R391	QRD161J-105	1M 1/6W CARBON RES	
	R392	QRD161J-105	1M 1/6W CARBON RES	
	R393	QRD161J-103	10K 1/6W CARBON RES	
	R394	QRD161J-103	10K 1/6W CARBON RES	
	R405	QRD161J-512	5.1K 1/6W CARBON RES	
	R406	QRD161J-512	5.1K 1/6W CARBON RES	
	R408	QRD161J-103	10K 1/6W CARBON RES	
	R409	QRD161J-103	10K 1/6W CARBON RES	
	R410	QRD161J-221	220 1/6W CARBON RES	
	R411	QRD161J-103	10K 1/6W CARBON RES	
	R701	QRD161J-222	2.2K 1/6W CARBON RES	
	R702	QRD161J-222	2.2K 1/6W CARBON RES	
	R703	QRD161J-104	100K 1/6W CARBON RES	
	R704	QRD161J-104	100K 1/6W CARBON RES	
	R705	QRD167J-822	8.2K 1/6W CARBON RES	
	R706	QRD167J-822	8.2K 1/6W CARBON RES	
	R707	QRD161J-101	100 1/6W CARBON RES	
	R708	QRD161J-101	100 1/6W CARBON RES	
	R711	QRD161J-202	2K 1/6W CARBON RES	
	R712	QRD161J-202	2K 1/6W CARBON RES	
	R713	QRD161J-202	2K 1/6W CARBON RES	
	R714	QRD161J-202	2K 1/6W CARBON RES	
	R715	QRD14CJ-151SX	150 1/4W UNF.CARBON	
	R716	QRD14CJ-151SX	150 1/4W UNF.CARBON	
	R719	QRD12CJ-153SX	15K 1/2W UNF.CARBON	
	R720	QRD12CJ-153SX	15K 1/2W UNF.CARBON	
	R721	QRD161J-391	390 1/6W CARBON RES	
	R722	QRD161J-391	390 1/6W CARBON RES	
	R723	QRD167J-152	1.5K 1/6W CARBON RES	
	R724	QRD167J-152	1.5K 1/6W CARBON RES	
	R727	QRD161J-391	390 1/6W CARBON RES	
	R728	QRD161J-391	390 1/6W CARBON RES	
⚠	R729	QRD14CJ-680SX	68 1/4W UNF.CARBON	
⚠	R730	QRD14CJ-680SX	68 1/4W UNF.CARBON	
⚠	R731	QRD14CJ-100SX	10 1/4W UNF.CARBON	
⚠	R732	QRD14CJ-100SX	10 1/4W UNF.CARBON	
	R733	QRD161J-133Y	13K 1/6W CARBON RES	
	R734	QRD161J-133Y	13K 1/6W CARBON RES	
	R735	QRD161J-681	680 1/6W CARBON RES	
	R736	QRD161J-681	680 1/6W CARBON RES	
	R737	QRD161J-823	82K 1/6W CARBON RES	
	R738	QRD161J-823	82K 1/6W CARBON RES	
	R741	QRD161J-431	430 1/6W CARBON RES	
	R742	QRD161J-431	430 1/6W CARBON RES	

RESISTORS

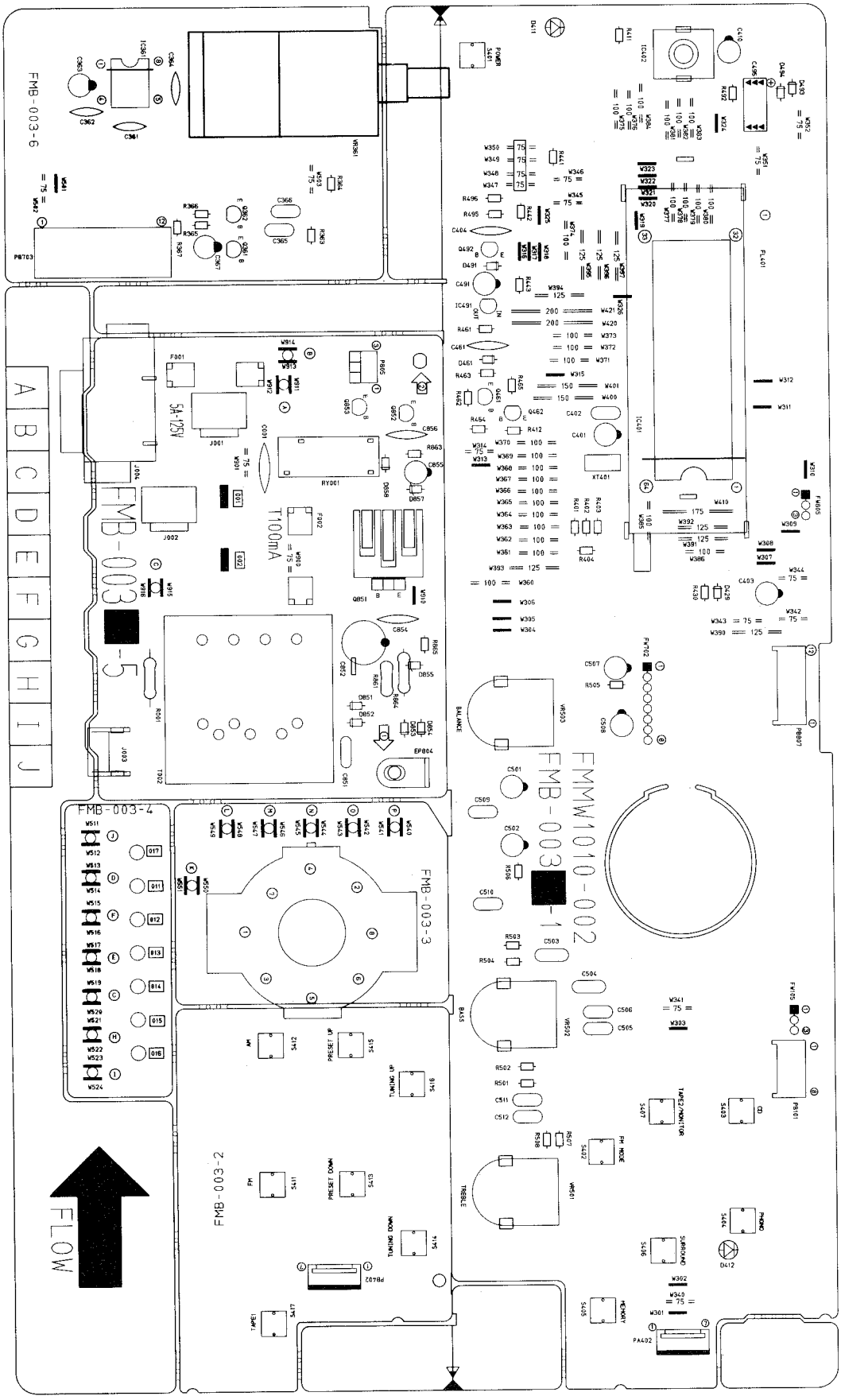
⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R745	QRD161J-102	1K 1/6W CARBON RES	
	R746	QRD161J-102	1K 1/6W CARBON RES	
	R747	ERT-D2WHL202S	2K 1/4W NEGATIVE T	
	R748	ERT-D2WHL202S	2K 1/4W NEGATIVE T	
⚠	R749	QRD14CJ-100SX	10 1/4W UNF.CARBON	
⚠	R750	QRD14CJ-100SX	10 1/4W UNF.CARBON	
	R751	QVPA601-501A	500 TRIMMER RE	
	R752	QVPA601-501A	500 TRIMMER RE	
	R755	QRD167J-152	1.5K 1/6W CARBON RES	
	R756	QRD167J-152	1.5K 1/6W CARBON RES	
⚠	R759	QRD14CJ-100SX	10 1/4W UNF.CARBON	
⚠	R760	QRD14CJ-100SX	10 1/4W UNF.CARBON	
⚠	R761	QRD14CJ-100SX	10 1/4W UNF.CARBON	
⚠	R762	QRD14CJ-100SX	10 1/4W UNF.CARBON	
	R767	QRD161J-820	82 1/6W CARBON RES	
	R768	QRD161J-820	82 1/6W CARBON RES	
	R769	QRD161J-820	82 1/6W CARBON RES	
	R770	QRD161J-820	82 1/6W CARBON RES	
	R771	QRD167J-151	150 1/6W CARBON RES	
	R772	QRD167J-151	150 1/6W CARBON RES	
	R773	QRD167J-151	150 1/6W CARBON RES	
	R774	QRD167J-151	150 1/6W CARBON RES	
	R781	QRD167J-562	5.6K 1/6W CARBON RES	
⚠	R783	QRD14CJ-272S	2.7K 1/4W UNF.CARBON	
⚠	R784	QRD14CJ-272S	2.7K 1/4W UNF.CARBON	
⚠	R785	QRD14CJ-271S	270 1/4W UNF.CARBON	
⚠	R786	QRD14CJ-271S	270 1/4W UNF.CARBON	
⚠	R787	ERF032K-R22	0.22 3W CEM.RESIST	
⚠	R788	ERF032K-R22	0.22 3W CEM.RESIST	
⚠	R789	QRZ0077-100	10 1/4W FUSIBLE RE	
⚠	R790	QRZ0077-100	10 1/4W FUSIBLE RE	
⚠	R791	QRZ0077-100	10 1/4W FUSIBLE RE	
⚠	R792	QRZ0077-100	10 1/4W FUSIBLE RE	
⚠	R793	QRD125J-330	33 1/2W UNF.CARBON	
⚠	R794	QRD125J-330	33 1/2W UNF.CARBON	
⚠	R795	QRG022J-100GJ7	10 2W OXIDE META	
⚠	R796	QRG022J-100GJ7	10 2W OXIDE META	
⚠	R802	QRG022J-821GJ7	820 2W OXIDE META	
⚠	R803	QRG022J-102GJ7	1K 2W OXIDE META	
⚠	R804	QRD125J-562	5.6K 1/2W UNF.CARBON	
⚠	R805	QRD125J-472	4.7K 1/2W UNF.CARBON	
⚠	R806	QRZ0077-121X	120 1/4W FUSIBLE RE	
⚠	R808	QRG022J-561GJ7	560 2W OXIDE META	
⚠	R809	QRG022J-561GJ7	560 2W OXIDE META	
⚠	R810	QRG022J-561GJ7	560 2W OXIDE META	
⚠	R811	QRD12CJ-822S	8.2K 1/2W NETWORK RE	
⚠	R812	QRD125J-180	18 1/2W UNF.CARBON	
⚠	R817	QRG022J-121GJ7	120 2W OXIDE META	
⚠	R818	QRG022J-151A	150 2W OXIDE META	
⚠	R819	QRZ0077-4R7	4.7 1/4W FUSE RESIS	
⚠	R820	QRD125J-822	8.2K 1/2W UNF.CARBON	
⚠	R821	QRX022J-2R2GJ7	2.2 2W OXIDE META	
⚠	R822	QRX022J-2R2GJ7	2.2 2W OXIDE META	
	R841	QRD161J-104	100K 1/6W CARBON RES	
	R842	QRD161J-104	100K 1/6W CARBON RES	
⚠	R843	QRD12CJ-2R2SX	2.2 1/2W CARBON RES	
⚠	R844	QRD12CJ-2R2SX	2.2 1/2W CARBON RES	
	R901	QRD161J-681	680 1/6W CARBON RES	
	R902	QRD161J-681	680 1/6W CARBON RES	
	R903	QRD167J-562	5.6K 1/6W CARBON RES	
	R904	QRD167J-562	5.6K 1/6W CARBON RES	
	R905	QRD161J-123	12K 1/6W CARBON RES	
	R906	QRD161J-123	12K 1/6W CARBON RES	
	R907	QRD167J-152	1.5K 1/6W CARBON RES	
	R908	QRD167J-152	1.5K 1/6W CARBON RES	
	R909	QRD161J-103	10K 1/6W CARBON RES	
	R911	QRD167J-332	3.3K 1/6W CARBON RES	
	R912	QRD161J-473	47K 1/6W CARBON RES	
	R913	QRD161J-104	100K 1/6W CARBON RES	
	R914	QRD161J-823	82K 1/6W CARBON RES	
	R915	QRD161J-473	47K 1/6W CARBON RES	
	R916	QRD161J-563	56K 1/6W CARBON RES	
	R917	QRD161J-683	68K 1/6W CARBON RES	
	R918	QRD161J-392	3.9K 1/6W CARBON RES	
	R921	QRD161J-224	220K 1/6W CARBON RES	
	R922	QRD161J-182	1.8K 1/6W CARBON RES	
⚠	R924	QRG022J-122A	1.2K 2W OXIDE META	
	R925	QRD161J-750	75 1/6W CARBON RES	
⚠	R931	QRD14CJ-330SX	33 1/4W UNF.CARBON	
	R935	QRD167J-562	5.6K 1/6W CARBON RES	
	R936	QRD167J-822	8.2K 1/6W CARBON RES	
	R937	QRD161J-103	10K 1/6W CARBON RES	
⚠	R941	QRG012J-471A	470 1W OXIDE META	
⚠	R942	QRG012J-471A	470 1W OXIDE META	

⚠ SAFETY PARTS

OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		FMMW1009-002	PRINTED BOA	
		QXTF500-015	SHRINK TUBE	
	J301	EMN00TV-423AJ2	PIN JACK	
	J302	EMN00TV-421AJ2	PIN JACK	
	J303	EMN00TV-421AJ2	PIN JACK	
	J901	QMS6022-V01	MICROPHONE	
	L331	EQL4007-220	INDUCTOR	
	L751	EQL0121-1R2J1	INDUCTOR	
	L752	EQL0121-1R2J1	INDUCTOR	
	S301	QST4101-E15	PUSH SWITCH **LOUDNESS**	
	S901	QST4241-E05J2	PUSH SWITCH **SPK 1**	
	S902	QST4241-E05J2	PUSH SWITCH **SPK 2**	
	EP801	EMZ4002-001Z	EARTH PLATE	
	EP802	EMZ4002-001Z	EARTH PLATE	
	EP803	E70225-001	EARTH PLATE	
	FW103	EWR36D-25LS	FLAT WIRE A **6PIN**	
	FW801	EWR36D-45SS	FLAT WIRE A **6PIN**	
	FW903	EWR36D-35SS	FLAT WIRE A **6PIN**	
	JT001	EMV7122-004Z	CONNECT TER **4PIN**	
	JT002	EMV7122-004Z	CONNECT TER **4PIN**	
	PA703	EMV7163-012	CONNECT TER **12PIN**	
	PA807	VMC0261-012	CONNECT TER **12PIN**	
	RY901	ESK7D24-2120	RELAY	
	ST901	FMMJ4002-001	SPEAKER TER	

■ FMB-003 [B] Front,Tone Control & Power Supply PC Board Ass'y



TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q361	2SD2144S(VW)	SI.TRANSIST ROHM	
	Q362	2SD2144S(VW)	SI.TRANSIST ROHM	
	Q461	2SC1740S(R,S)	SI.TRANSIST ROHM	
	Q462	2SC1740S(R,S)	SI.TRANSIST ROHM	
	Q492	DTC114YS	DIGITAL TRA ROHM	
	Q851	2SD1266(Q)	SILICON	
	Q852	2SC2235(O,Y)	SI.TRANSIST TOSHIBA	
	Q853	BA1L3Z	DIGITAL TRA NEC	

I. C. S.

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC361	LB1639-CV	I.C(DIGI-OT SANYO	
	IC401	MN171202JYY	I.C(MICRO-C MATSUSHITA	
	IC402	NJH32H380A	I.C(M) DAINICHI	
	IC491	PST600E-T	I.C(MONO-AN 0062	

DIODES

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D411	SLR-54VC5OF124	L.E.D. ROHM	
	D412	SLR-34DC5OF124	L.E.D.	
	D429	1SS133	SI.DIODE ROHM	
	D461	1SS133	SI.DIODE ROHM	
	D491	1SS133	SI.DIODE ROHM	
	D493	1SS133	SI.DIODE ROHM	
	D494	1SS133	SI.DIODE ROHM	
⚠	D851	1SR35-200A	SI.DIODE ROHM	
⚠	D852	1SR35-200A	SI.DIODE ROHM	
⚠	D853	1SR35-200A	SI.DIODE ROHM	
⚠	D854	1SR35-200A	SI.DIODE ROHM	
	D855	MTZ12JC	ZENER DIODE ROHM	
	D857	MTZ6.2JC	ZENER DIODE ROHM	
	D858	1SS133	SI.DIODE ROHM	

⚠ : SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
⚠	C001	QCZ9019-472	4700PF C.CAPACITO	
	C361	QCY21HK-331	330PF 50V CER.CAPACI	
	C362	QCY21HK-331	330PF 50V CER.CAPACI	
	C363	QETBOJM-107	100MF 6.3V AL E.CAPAC	
	C364	QCF21HP-473A	0.047MF 50V CER.CAPACI	
	C365	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	
	C366	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	
	C367	QETB1EM-226	22MF 25V AL E.CAPAC	
	C401	QEK61AM-227ZM	220MF 10V AL E.CAPAC	
	C402	QCZ0202-155	1.5MF 25V CER.RESIST	
	C403	QEK51HM-475	4.7MF 50V AL E.CAPAC	
	C404	QCY31HK-102Z	1000PF 50V CER.CAPACI	
	C410	QEK51HM-105G	1MF 50V AL E.CAPAC	
	C491	QEK51HM-225G	2.2MF 50V AL E.CAPAC	
	C495	QEADOHZ-479A	47000MF E.CAPACITO	
	C501	QEK51HM-105G	1MF 50V AL E.CAPAC	
	C502	QEK51HM-105G	1MF 50V AL E.CAPAC	
	C503	QFLB1HJ-823	0.082MF 50V MYLAR CAPA	
	C504	QFLB1HJ-823	0.082MF 50V MYLAR CAPA	
	C505	QFLB1HJ-153	0.015MF 50V MYLAR CAPA	
	C506	QFLB1HJ-153	0.015MF 50V MYLAR CAPA	
	C507	QETB1HM-105	1MF 50V AL E.CAPAC	
	C508	QETB1HM-105	1MF 50V AL E.CAPAC	
	C509	QFLB1HJ-332	3300PF 50V MYLAR CAPA	
	C510	QFLB1HJ-332	3300PF 50V MYLAR CAPA	
	C511	QFLB1HJ-183	0.018MF 50V MYLAR CAPA	
	C512	QFLB1HJ-183	0.018MF 50V MYLAR CAPA	
	C851	QFN82AJ-472	4700PF 100V MYLAR CAPA	
	C852	QETB1JM-227	220MF 63V AL E.CAPAC	
	C854	QCF21HP-472	4700PF 50V CER.CAPACI	
	C855	QETB1CM-476	47MF 16V AL E.CAPAC	
	C856	QCF21HP-472	4700PF 50V CER.CAPACI	

⚠ : SAFETY PARTS

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R363	QRD167J-682	6.8K 1/6W CARBON RES	
	R364	QRD167J-682	6.8K 1/6W CARBON RES	
	R365	QRD161J-222	2.2K 1/6W CARBON RES	
	R366	QRD161J-222	2.2K 1/6W CARBON RES	
	R367	QRD161J-202	2K 1/6W CARBON RES	
	R401	QRD161J-104	100K 1/6W CARBON RES	
	R402	QRD161J-104	100K 1/6W CARBON RES	
	R403	QRD161J-104	100K 1/6W CARBON RES	
	R404	QRD161J-104	100K 1/6W CARBON RES	
	R411	QRD161J-221	220 1/6W CARBON RES	
	R412	QRD161J-221	220 1/6W CARBON RES	
	R430	QRD161J-220	22 1/6W CARBON RES	
	R441	QRD161J-473	47K 1/6W CARBON RES	
	R442	QRD161J-473	47K 1/6W CARBON RES	
	R443	QRD161J-473	47K 1/6W CARBON RES	
	R461	QRD161J-103	10K 1/6W CARBON RES	
	R462	QRD167J-223	22K 1/6W CARBON RES	
	R463	QRD161J-473	47K 1/6W CARBON RES	
	R464	QRD161J-471	470 1/6W CARBON RES	
	R465	QRD161J-103	10K 1/6W CARBON RES	
	R492	QRD161J-331	330 1/6W CARBON RES	
	R495	QRD161J-473	47K 1/6W CARBON RES	
	R496	QRD161J-471	470 1/6W CARBON RES	
	R501	QRD161J-203	20K 1/6W CARBON RES	
	R502	QRD161J-203	20K 1/6W CARBON RES	
	R503	QRD161J-362	3.6K 1/6W CARBON RES	
	R504	QRD161J-362	3.6K 1/6W CARBON RES	
	R505	QRD161J-472	4.7K 1/6W CARBON RES	
	R506	QRD161J-472	4.7K 1/6W CARBON RES	
	R507	QRD161J-821	820 1/6W CARBON RES	
	R508	QRD161J-821	820 1/6W CARBON RES	
⚠	R861	QRZ0076-3R3	3.3 1/4W FUSIBLE RE	
⚠	R863	QRV144F-8200	1/4W CONST.META	
⚠	R864	QRG012J-332AM	3.3K 1W OXIDE META	
	VR361	QVDB71B-E15BJ5	100K VARIABLE R	
	VR501	QVDB92C-E15CJ3	100K VARIABLE R	
	VR502	QVDB92C-E15CJ3	100K VARIABLE R	
	VR503	QVDA92W-E15EJ3	100K VARIABLE R	

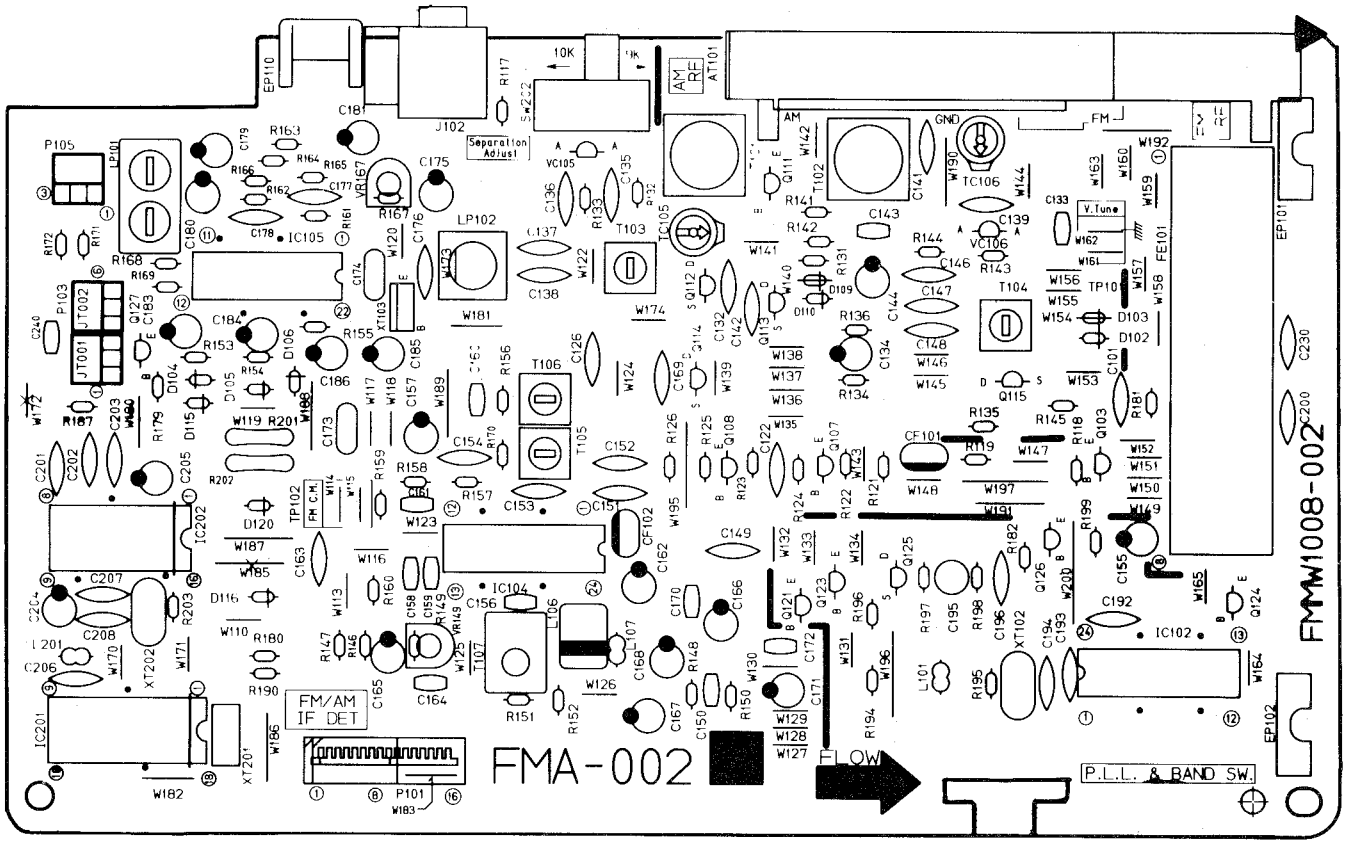
⚠ : SAFETY PARTS

OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		FMMW1010-002	PRINTED BOA	
⚠		QSR0085-018	SELECT SWIT	
		EMZ4001-001	TAB	
		VMZ0087-001Z	FUSE HOLDER	
		E70945-H40B	HEAT SINK	
		SBST3008CC	TAPPING SCR	
		QWE880-28RR	VINYL WIRE	
		QWE881-28RR	VINYL WIRE	
		QWE882-26RR	VINYL WIRE	
		QWE883-26RR	VINYL WIRE	
		QWE884-28RR	VINYL WIRE	
		QWE886-22RR	VINYL WIRE	
		QWE886-28RR	VINYL WIRE	
		QWE888-26RR	VINYL WIRE	
	J001	EMV5137-002	CONNECT TER 2PIN	
	J003	E70225-001	EARTH PLATE	
⚠	J004	QMCA002-E02S	AC OUTLET	
	P805	EMV7122-103	CONNECT TER 3PIN	
	S401	ESP0001-023M	TACT SWITCH POWER	
	S402	ESP0001-023M	TACT SWITCH FM MODE	
	S403	ESP0001-023M	TACT SWITCH CD	
	S404	ESP0001-023M	TACT SWITCH PHONO	
	S405	ESP0001-023M	TACT SWITCH MEMORY	
	S406	ESP0001-023M	TACT SWITCH SURROUND	
	S407	ESP0001-023M	TACT SWITCH TAPE 2/MONTOR	
	S411	ESP0001-023M	TACT SWITCH FM	
	S412	ESP0001-023M	TACT SWITCH AM	
	S413	ESP0001-023M	TACT SWITCH PRESET DOWN	
	S414	ESP0001-023M	TACT SWITCH TUNING DOWN	
	S415	ESP0001-023M	TACT SWITCH PRESET UP	
	S416	ESP0001-023M	TACT SWITCH TUNING UP	
	S417	ESP0001-023M	TACT SWITCH TAPE 1	
⚠	T002	ETP1000-41ZB	POWER TRASN	
	EP804	EMZ4002-001Z	EARTH PLATE	
	FH001	E308270-001	FL HOLDER	
	FH002	E308270-001	FL HOLDER	
	FL401	ELU0001-143	FLUORESCENT	
	FS001	E3400-444	FELT SPACER	
	FS002	E3400-444	FELT SPACER	
	FW105	EWR33D-32KS	FLAT WIRE A	
	FW702	EWR38D-30LS	FLAT WIRE A 8PIN	
	FW805	EWR33D-30LS	FLAT WIRE A 3PIN	
	PA402	VMC0261-R07	CONNECT TER 7PIN	
	PB101	VMC0261-R08	CONNECT TER 8PIN	
	PB402	VMC0261-R07	CONNECT TER 7PIN	
	PB703	EMV5163-012R	CONNECT TER 12PIN	
	PB807	VMC0261-R12	CONNECT TER 12PIN	
⚠	RY001	ESK1D12-118J1	RELAY	
	XT401	ECX0060-000EM	CERAMIC RES	

⚠ : SAFETY PARTS

■ FMA-002 [B] Tuner PC Board Assy



TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q103	2SC461	SI.TRANSIST	
	Q107	2SC535	SI.TRANSIST HITACHI	
	Q108	2SC461	SI.TRANSIST	
	Q112	2SK301(P,Q)	F.E.T. MATSUSHITA	
	Q123	BN1A4P	DIGITAL TRA NEC	
	Q124	BN1A4P	DIGITAL TRA NEC	
	Q125	2SK301(P,Q)	F.E.T. MATSUSHITA	
	Q126	2SC458(C,D)	SI.TRANSIST HITACHI	
	Q127	BA1L4M	DIGITAL TRA NEC	

I. C. S.

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC102	LC7218	I.C(DIGI-MO	
	IC104	LA1266A	I.C(MONO-AN SANYO	
	IC105	LA3401	I.C(MONO-AN SANYO	

DIODES

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D104	1SS133	SI.DIODE ROHM	
	D105	1SS133	SI.DIODE ROHM	
	D106	1SS133	SI.DIODE ROHM	
	D115	1SS133	SI.DIODE ROHM	
	D116	1SS133	SI.DIODE ROHM	
	D120	1SS133	SI.DIODE ROHM	
	VC105	SVC342(L)	VARI-CAPA D SANYO	

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C101	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C122	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C126	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C132	QCS31HJ-561Z	560PF 50V CER.CAPACI	
	C133	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C134	QETB1EM-106	10MF 25V AL E.CAPAC	
	C135	QCC21EM-223	0.022MF 25V CER.CAPACI	
	C136	QCT25CH-180Z	18PF 50V CER.CAPACI	
	C137	QCT26CH-221	220PF 50V CER.CAPACI	
	C138	QCT26CH-241	240PF 50V CER.CAPACI	
	C149	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C150	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C151	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C152	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C153	QCC21EM-223	0.022MF 25V CER.CAPACI	
	C154	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C155	QETB1EM-226	22MF 25V AL E.CAPAC	
	C156	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C157	QETB1HM-474	0.47MF 50V ELECTRO	
	C158	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C159	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C160	QCBB1HK-221Y	220PF 50V CER.CAPACI	
	C161	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C162	QETB1EM-106	10MF 25V AL E.CAPAC	
	C163	QCY31HK-332Z	3300PF 50V CER.CAPACI	
	C164	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C165	QETB1HM-474	0.47MF 50V ELECTRO	
	C166	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C167	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C168	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C169	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C170	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C171	QETB1EM-106	10MF 25V AL E.CAPAC	
	C172	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C173	QFLB1HK-223	0.022MF 50V MYLAR CAPA	
	C174	QFLB1HK-473	0.047MF 50V MYLAR CAPA	
	C175	QETB1EM-106	10MF 25V AL E.CAPAC	
	C176	QCY31HK-102Z	1000PF 50V CER.CAPACI	
	C177	QCS31HJ-561Z	560PF 50V CER.CAPACI	
	C178	QCS31HJ-561Z	560PF 50V CER.CAPACI	
	C179	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C180	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C181	QETB1EM-106	10MF 25V AL E.CAPAC	
	C183	QETB1HM-105	1MF 50V AL E.CAPAC	
	C184	QETB1HM-105	1MF 50V AL E.CAPAC	

⚠ : SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C185	QETB1HM-225	2.2MF	50V	AL E.CAPAC	
	C186	QETB1HM-474	0.47MF	50V	ELECTRO	
	C192	QCC21EM-473	0.047MF	25V	CER.CAPACI	
	C193	QCS21HJ-180A	18PF	50V	CER.CAPACI	
	C194	QCS21HJ-180A	18PF	50V	CER.CAPACI	
	C195	QEN51HM-474	0.47MF	50V	NP E.CAPAC	
	C196	QCY31HK-102Z	1000PF	50V	CER.CAPACI	
	C206	QCC21EM-104	0.1MF	25V	CER.CAPACI	
	C230	QCF21HP-103A	0.01MF	50V	CER.CAPACI	

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R117	QRD161J-100	10	1/6W	CARBON RES	
	R118	QRD167J-332	3.3K	1/6W	CARBON RES	
	R119	QRD161J-221	220	1/6W	CARBON RES	
	R121	QRD161J-391	390	1/6W	CARBON RES	
	R122	QRD167J-272	2.7K	1/6W	CARBON RES	
	R123	QRD161J-102	1K	1/6W	CARBON RES	
	R124	QRD161J-681	680	1/6W	CARBON RES	
	R125	QRD167J-332	3.3K	1/6W	CARBON RES	
	R126	QRD161J-221	220	1/6W	CARBON RES	
	R131	QRD161J-331	330	1/6W	CARBON RES	
	R132	QRD161J-103	10K	1/6W	CARBON RES	
	R133	QRD161J-473	47K	1/6W	CARBON RES	
	R135	QRD161J-470	47	1/6W	CARBON RES	
	R136	QRD161J-103	10K	1/6W	CARBON RES	
	R146	QRD167J-560	56	1/6W	CARBON RES	
	R147	QRD161J-103	10K	1/6W	CARBON RES	
	R148	QRD161J-103	10K	1/6W	CARBON RES	
	R149	QRD161J-273	27K	1/6W	CARBON RES	
	R150	QRD161J-103	10K	1/6W	CARBON RES	
	R151	QRD161J-224	220K	1/6W	CARBON RES	
	R152	QRD161J-103	10K	1/6W	CARBON RES	
	R153	QRD161J-103	10K	1/6W	CARBON RES	
	R154	QRD161J-103	10K	1/6W	CARBON RES	
	R155	QRD167J-562	5.6K	1/6W	CARBON RES	
	R157	QRD161J-103	10K	1/6W	CARBON RES	
	R158	QRD161J-333	33K	1/6W	CARBON RES	
	R159	QRD161J-561	560	1/6W	CARBON RES	
	R160	QRD161J-123	12K	1/6W	CARBON RES	
	R161	QRD161J-124	120K	1/6W	CARBON RES	
	R162	QRD161J-124	120K	1/6W	CARBON RES	
	R163	QRD167J-332	3.3K	1/6W	CARBON RES	
	R164	QRD167J-332	3.3K	1/6W	CARBON RES	
	R165	QRD161J-184	180K	1/6W	CARBON RES	
	R166	QRD161J-184	180K	1/6W	CARBON RES	
	R167	QRD161J-473	47K	1/6W	CARBON RES	
	R168	QRD161J-103	10K	1/6W	CARBON RES	
	R169	QRD161J-103	10K	1/6W	CARBON RES	
	R170	QRD167J-822	8.2K	1/6W	CARBON RES	
	R171	QRD167J-682	6.8K	1/6W	CARBON RES	
	R172	QRD167J-682	6.8K	1/6W	CARBON RES	
	R179	QRD167J-562	5.6K	1/6W	CARBON RES	
	R180	QRD161J-472	4.7K	1/6W	CARBON RES	
	R181	QRD161J-222	2.2K	1/6W	CARBON RES	
	R182	QRD161J-181	180	1/6W	CARBON RES	
	R187	QRD161J-101	100	1/6W	CARBON RES	
	R190	QRD161J-472	4.7K	1/6W	CARBON RES	
	R194	QRD161J-472	4.7K	1/6W	CARBON RES	
	R195	QRD161J-473	47K	1/6W	CARBON RES	
	R196	QRD161J-103	10K	1/6W	CARBON RES	
	R197	QRD161J-222	2.2K	1/6W	CARBON RES	
	R198	QRD167J-332	3.3K	1/6W	CARBON RES	
	R199	QRD161J-472	4.7K	1/6W	CARBON RES	
⚠	R201	QRZ0077-680	68	1/4W	FUSIBLE RE	
⚠	R202	QRZ0077-470	47	1/4W	FUSIBLE RE	

⚠ : SAFETY PARTS

OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		FMMW1008-002A	PRINTED BOA	
	J102	QMS3501-021	PIN JACK	
	L101	EQL4007-1R0	INDUCTOR	
	L107	EQL4007-101	INDUCTOR	
	P101	VMC0261-008	CONNECT TER 8PIN	
	P105	EMV7122-103	CONNECT TER 3PIN	
	T101	EQR1111-014	RF COIL	
	T103	EQR1207-015	RF COIL	
	T105	EQT2140-017	I.F.TRANSFO	
	T107	ECB1560-010	CERAMIC FIL	
	AT101	EMB41YV-401K	ANTENNA TER	
	CF101	ECB2123-006R	CERAMIC FIL	
	CF102	ECB2123-006R	CERAMIC FIL	
	EP101	E65396-003	EARTH PLATE	
	EP102	E65396-003	EARTH PLATE	
	EP110	E70225-001	EARTH PLATE	
	FE101	EAF2203-004	FRONT END	
	JT001	EMV7122-103	CONNECT TER 3PIN	
	JT002	EMV7122-103	CONNECT TER 3PIN	
	LP101	EQF0101-002	LOWPASS FIL	
	SW202	QSS1201-039	SLIDE SWITC	
	TC105	ENZ1003-006	TRIMMER CAP	
	XT102	ECX0007-200KWJ1	CRYSTAL	
	XT103	ECX0000-456KR	CERAMIC RES	

⚠ : SAFETY PARTS

Accessories List

Symbol No. M 2 M M

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	1	E30580-2188A	INSTRUCTION BOOK	1		
	2	RM-SR317U	WIRE-LESS REMOTE CONTROL	1		
	3	E03614-004	FM FEEDER ANTENNA	1		
	4	EQB4001-015	LOOP ANTENNA	1		
	5	ENZ2203-001	ADAPTOR PLUG	1		
	6	UM-3(DJ)-2PSA	BATTERY	1		
⚠	7-1	QMF51E2-2R0	FUSE	1		
	7-2	E67142-T2R0	FUSE LABEL	1		
	7-3	QPGA005-00703	ENVELOPE	1		
	8	E300196-033B	POLY BAG	1		
	-	E306858-002	CAUTION SHEET	1		UT
	-	FMND3004-002	CAUTION SHEET	1		UT

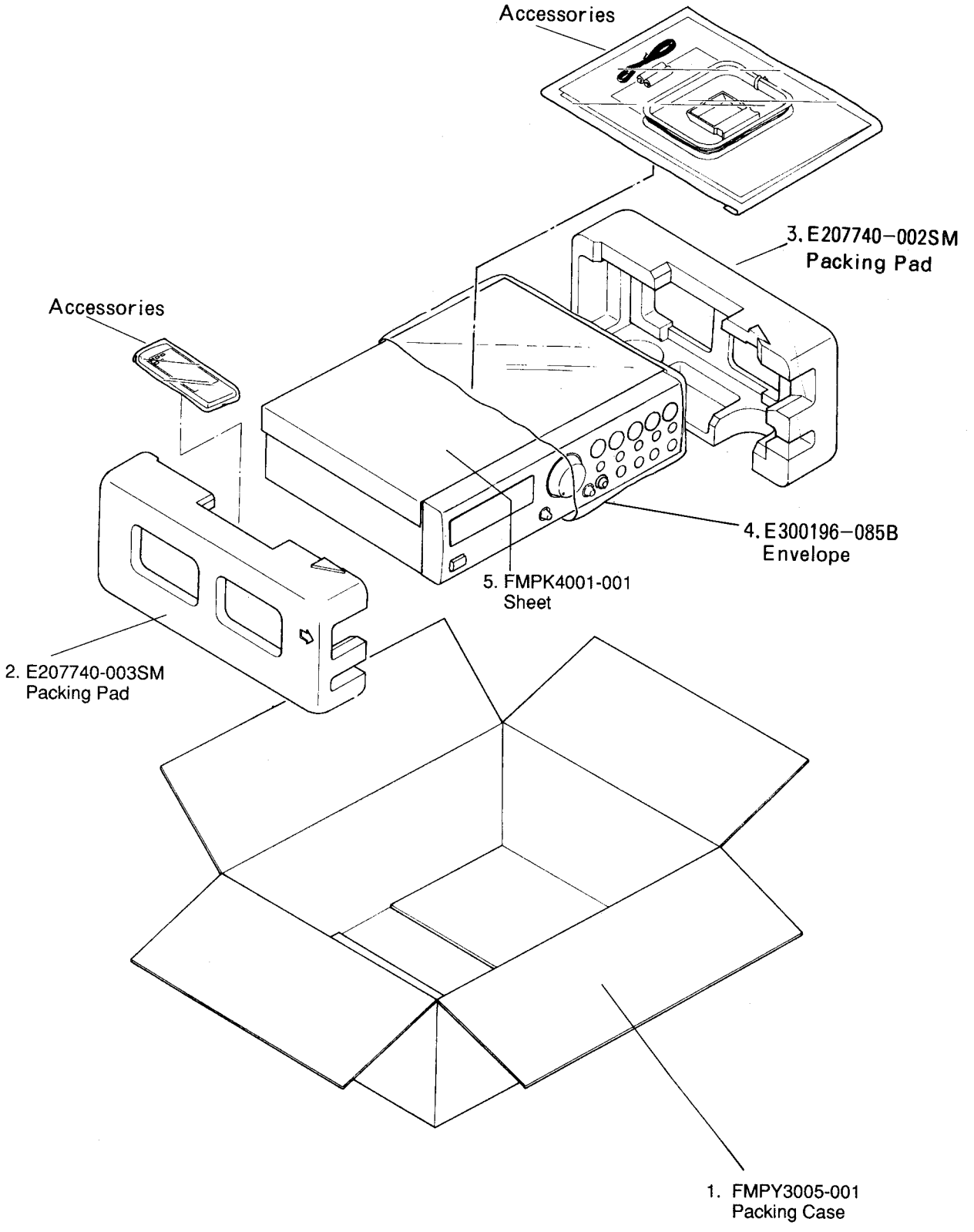
The Marks for Designated Areas

U ..... Universal UT .... Taiwan

No mark indicates all area.

Packing Materials and Part Numbers

Symbol No. M 3 M M



The Marks for Designated Areas				
U ..... Universal Type	UT .... Taiwan	No mark indicates all area.		

PARTS LIST

Note : All printed circuit borad assemblies are not available as service parts.

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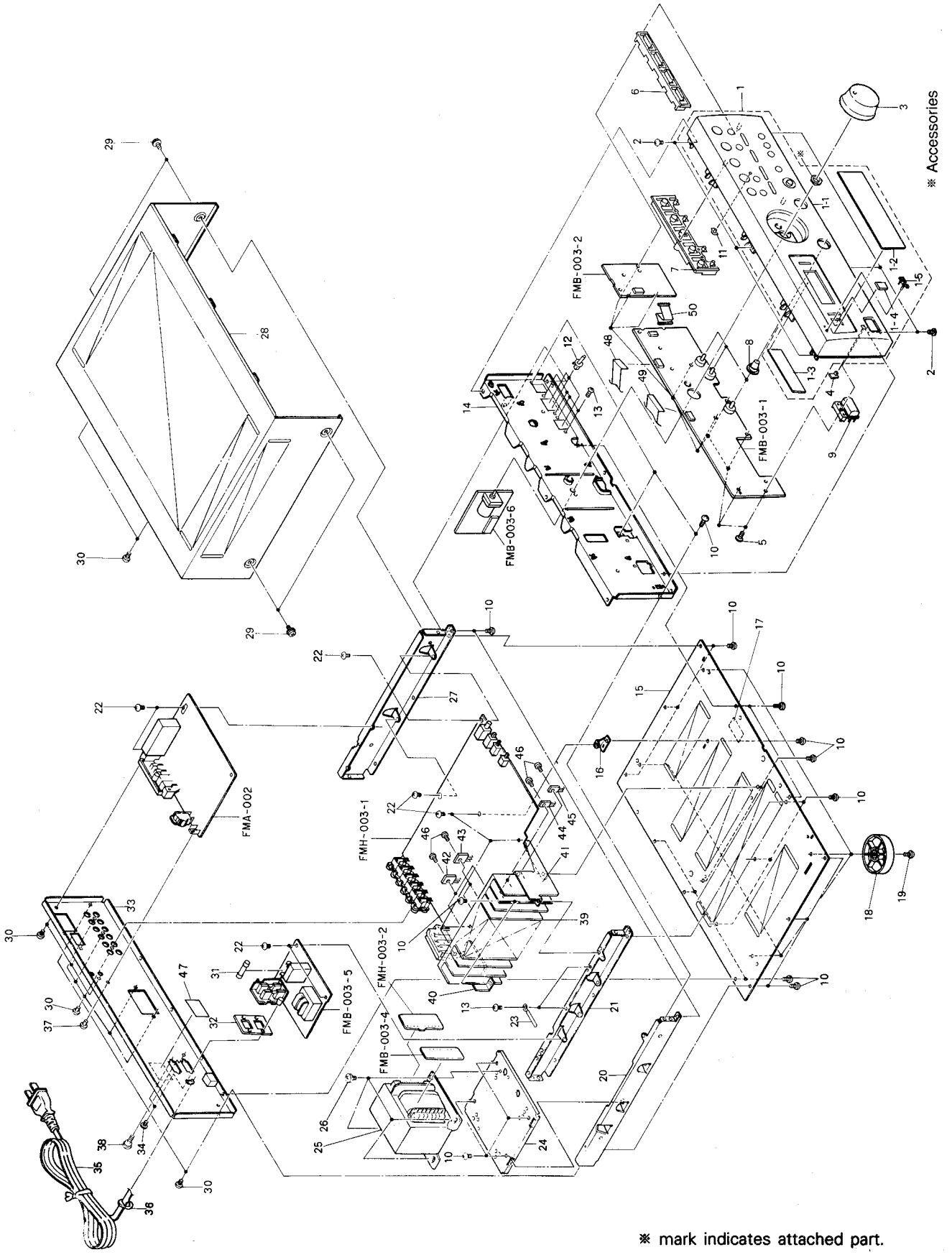
General Exploded View and Parts List

Symbol No. M 1 M M



※ mark indicates attached part.

Parts List

Symbol No. M 1 M M

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	1	EFP-RX317TNJ(S)	FRONT PANEL ASS	1		
	1-1	FMJC1007-002	FRONT PANEL	1		
	1-2	E308268-014SM	WINDOW SCREEN	1		
	1-3	E407322-001SM	FLOURESCENT DISPL.SCREEN	1		
	1-4	E72436-006	REMORT SCREEN	1		
	1-5	VJD5429-001	JVC MARK	1		
	2	SDSG3008M	TAPPING SCREW	6		
	3	E309107-002	VOLUME KNOB	1		
	4	FMJK4005-001	INDICATOR LENS	1		
	5	SDSF2608Z	SCREW	9		
	6	FMXP2001-002	PUSH BUTTON	1		
	7	FMXP3007-002	PUSH BUTTON	1		
	8	FMXL4006-002SM	BALANCE KNOB	3		
	9	FMXP4004-004	POWER BUTTON	1		
	10	SBSG3008Z	TAPPING SCREW	28		
	11	FMJK4004-001	INDICATOR LENS	1		
	12	E407321-001SM	PUSH BUTTON	3		
	13	SBST3006Z	TAPPING SCREW	6		
	14	FMKL1001-001	FRONT BRACKET	1		
	15	E102371-005SM	CHASSIS BASE	1		
	16	E68587-222SM	BRACKET PLATE	1		
	17	E70115-002	CAUTION LABEL	1		C
		E70281-001	CAUTION LABEL	1		J
	18	VJF4039-00E	FOOT	4		
	19	SBST3010Z	TAPPING SCREW	4		
	20	E206956-001SM	SIDE BRACKET	1		
	21	E206958-004SM	CENTER BRACKET	1		
	22	SBSG3008CC	TAPPING SCREW	11		
	23	VKZ4001-111S	WIRE CLAMP	2		
	24	E206959-002SM	TRANSFORMER BRACKET	1		
⚠	25	FMTP1200-01JBJ	POWER TRANSFORMER	1		
	26	E65389-002	SPECIAL SCREW	4		
	27	E206957-001SM	SIDE BRACKET	1		
	28	E206967-223	METAL COVER	1		
	29	E61660-004	SPECIAL SCREW	4		
	30	SBSG3008M	TAPPING SCREW	12		
⚠	31	QMF0007-5R0J1	FUSE	1		
	32	E69589-008	SPACER	1		J
	33	E207332-047SM	REAR PANEL	1		
	34	SDSG3008M	TAPPING SCREW	2		
⚠	35	QMP1480-200E	POWER CORD	1		
⚠	36	QHS3876-162	CORD STOPPER	1		
	37	SBST3006M	TAPPING SCREW	1		
	38	E73562-003	SPECIAL SCREW	1		
	39	FMMH3002-001	HEAT SINK	1		
	40	E307874-001SM	HEAT SINK BRACKET	1		
	41	E307874-002SM	HEAT SINK BRACKET	1		
	42	2SB1429LB(R,O)	SI.TRANSISTOR	2		
	43	2SD2155LB(R,O)	SI.TRANSISTOR	2		
	44	2SD2061F(E,F)	SI.TRANSISTOR	2		
	45	2SB1187F(E,F)	SI.TRANSISTOR	1		
	46	E73525-003	SCREW	7		
	47	E65507-001	CAUTION LABEL	1		C

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	47	E67199-001	CAUTION LABEL	1		J
	48	FMWF1208-23TTA	FLAT WIRE ASSY	1		
	49	FMWF1212-35TTB	FLAT WIRE ASSY	1		
	50	FMWH0001-001	FLAT WIRE ASSY	1		
	-	E45858-002	CSA LABEL	1		C

The Marks for Designated Areas

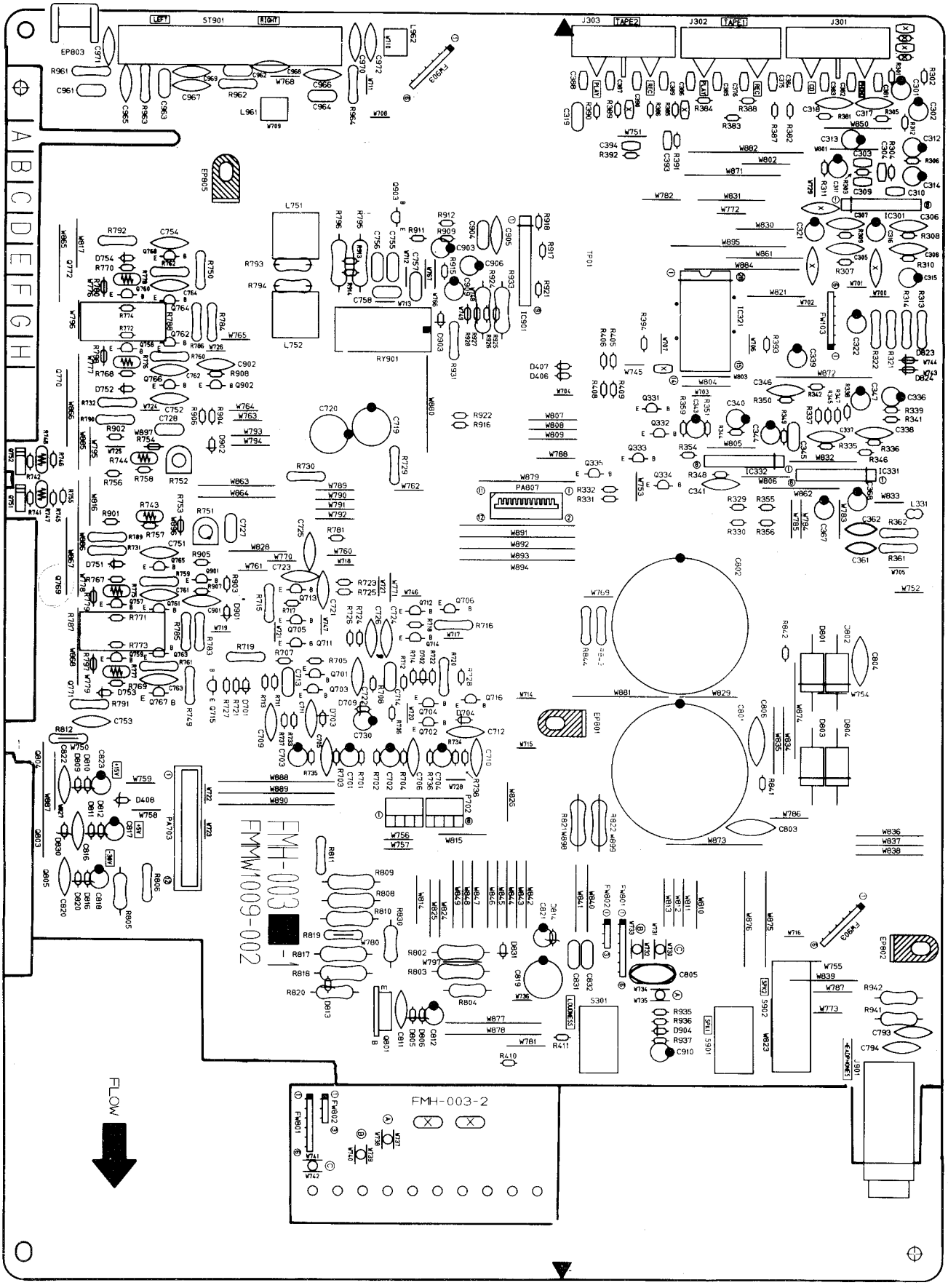
J .... the U.S.A. C ... Canada

No mark indicates all area.

Printed Circuit Board Ass'y and Parts List

■ FMH-003 □ Amplifier & Selector PC Board Ass'y

Note: FMH-003 □ varies according to the areas employed.See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
FMH-003 [A]	J	the U.S.A.
FMH-003 [B]	C	Canada

TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q331	BA1L4M	DIGITAL TRA NEC	
	Q332	2SD655(E,F)	SI.TRANSIST HITACHI	
	Q333	2SD2144S(VW)	SI.TRANSIST ROHM	
	Q334	2SD2144S(VW)	SI.TRANSIST ROHM	
	Q335	BN1L4M	D.TR.I.M	
	Q701	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q702	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q703	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q704	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q705	2SA1038(R,S)	SI.TRANSIST ROHM	
	Q706	2SA1038(R,S)	SI.TRANSIST ROHM	
	Q711	2SA1038(R,S)	SI.TRANSIST ROHM	
	Q712	2SA1038(R,S)	SI.TRANSIST ROHM	
	Q713	2SA1038(R,S)	SI.TRANSIST ROHM	
	Q714	2SA1038(R,S)	SI.TRANSIST ROHM	
	Q715	2SC2389(S,E)	SI.TRANSIST ROHM	
	Q716	2SC2389(S,E)	SI.TRANSIST ROHM	
	Q751	2SD636	SI.TRANSIST MATSUSHITA	
	Q752	2SD636	SI.TRANSIST MATSUSHITA	
	Q757	2SC945A	SI.TRANSIST NEC	
	Q758	2SC945A	SI.TRANSIST NEC	
	Q759	2SA733A(P,K)	SI.TRANSIST NEC	
	Q760	2SA733A(P,K)	SI.TRANSIST NEC	
	Q761	2SC2240(BL)	SI.TRANSIST	
	Q762	2SC2240(BL)	SI.TRANSIST	
	Q763	2SA970(GR)	SI.TRANSIST TOSHIBA	
	Q764	2SA970(GR)	SI.TRANSIST TOSHIBA	
	Q765	2SC2235(O,Y)	SI.TRANSIST TOSHIBA	
	Q766	2SC2235(O,Y)	SI.TRANSIST TOSHIBA	
	Q767	2SA965(Y)	SI.TRANSIST TOSHIBA	
	Q768	2SA965(Y)	SI.TRANSIST TOSHIBA	
	Q801	2SB1187(F,G)	SI.TRANSIST ROHM	
	Q901	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q902	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q903	2SA1038(R,S)	SI.TRANSIST ROHM	

I. C. S.

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC301	NJM4580LD	I.C(MONO-AN DAINICHI	
	IC321	TC9164N	I.C(DIGI-MO TOSHIBA	
	IC331	BA15218N	I.C(MONO-AN ROHM	
	IC332	BA15218N	I.C(MONO-AN ROHM	
	IC901	TA7317P	I.C(MONO-AN TOSHIBA	

DIODES

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D406	1SS133	SI.DIODE ROHM	
	D407	1SS133	SI.DIODE ROHM	
	D408	MTZ6.8JC	ZENER DIODE ROHM	
	D701	1SS133	SI.DIODE ROHM	
	D702	1SS133	SI.DIODE ROHM	
	D703	1SS133	SI.DIODE ROHM	
	D704	1SS133	SI.DIODE ROHM	
	D709	MTZ18JC	ZENER DIODE ROHM	
	D751	1SS133	SI.DIODE ROHM	
	D752	1SS133	SI.DIODE ROHM	
	D753	1SS133	SI.DIODE ROHM	
	D754	1SS133	SI.DIODE ROHM	
⚠	D801	30D2FC	GE.DIODE NIHONINTER	
⚠	D802	30D2FC	GE.DIODE NIHONINTER	
⚠	D803	30D2FC	GE.DIODE NIHONINTER	
⚠	D804	30D2FC	GE.DIODE NIHONINTER	
	D805	1SS133	SI.DIODE ROHM	
	D806	MTZ16JC	ZENER DIODE ROHM	
	D809	1SS133	SI.DIODE ROHM	
	D810	MTZ16JC	ZENER DIODE ROHM	
	D811	1SS133	SI.DIODE ROHM	
	D812	MTZ7.5JC	ZENER DIODE ROHM	
	D814	MTZ5.1JC	ZENER DIODE ROHM	
	D816	MTZ20JC	ZENER DIODE ROHM	
	D820	1SS133	SI.DIODE ROHM	
	D830	MTZ3.3JB	ZENER DIODE ROHM	
	D831	1SS133	SI.DIODE ROHM	
	D901	1SS133	SI.DIODE ROHM	
	D902	1SS133	SI.DIODE ROHM	
	D903	1SS133	SI.DIODE ROHM	
	D904	1SS133	SI.DIODE ROHM	

⚠ : SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C301	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C302	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C303	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C304	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C305	QCY31HK-182Z	1800PF 50V CER.CAPACI	
	C306	QCY31HK-182Z	1800PF 50V CER.CAPACI	
	C307	QCY31HK-682Z	6800PF 50V CER.CAPACI	
	C308	QCY31HK-682Z	6800PF 50V CER.CAPACI	
	C309	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C310	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C311	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C312	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C313	QETB1AM-107	100MF 10V AL E.CAPAC	
	C314	QETB1AM-107	100MF 10V AL E.CAPAC	
	C315	QETB1CM-476	47MF 16V AL E.CAPAC	
	C316	QETB1CM-476	47MF 16V AL E.CAPAC	
	C317	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C318	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C319	QFV81HJ-154	0.15MF 50V THIN FILM	
	C321	QETB1EM-226	22MF 25V AL E.CAPAC	
	C322	QETB1EM-226	22MF 25V AL E.CAPAC	
	C336	QETB1CM-226	22MF 16V E.CAPACITO	
	C337	QCS21HJ-100	10PF 50V CER.CAPACI	
	C338	QCS21HJ-100	10PF 50V CER.CAPACI	
	C339	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C340	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C341	QCS31HJ-330Z	33PF 50V CER.CAPACI	
	C343	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C344	QETB1HM-105	1MF 50V AL E.CAPAC	
	C345	QFLB1HJ-392	3900PF 50V MYLAR CAPA	
	C346	QCS21HJ-100	10PF 50V CER.CAPACI	
	C347	QETB1EM-226	22MF 25V AL E.CAPAC	
	C361	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C362	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C367	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C368	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C701	QETB1HM-106	10MF 50V E.CAPACITO	
	C702	QETB1HM-106	10MF 50V E.CAPACITO	
	C703	QETB1EM-476	47MF 25V AL E.CAPAC	
	C704	QETB1EM-476	47MF 25V AL E.CAPAC	
	C705	QCS21HJ-101A	100PF 50V CER.CAPACI	
	C706	QCS21HJ-101A	100PF 50V CER.CAPACI	
	C709	QCS21HJ-100	10PF 50V CER.CAPACI	
	C710	QCS21HJ-100	10PF 50V CER.CAPACI	
	C711	QCS21HJ-101A	100PF 50V CER.CAPACI	
	C712	QCS21HJ-101A	100PF 50V CER.CAPACI	
	C713	QFLB1HJ-152	1500PF 50V MYLAR CAPA	
	C714	QFLB1HJ-152	1500PF 50V MYLAR CAPA	
	C719	QETB2AM-476	47MF 100V AL E.CAPAC	
	C720	QETB2AM-476	47MF 100V AL E.CAPAC	
	C721	QCS22HJ-220	22PF 500V CER.CAPACI	
	C722	QCS22HJ-220	22PF 500V CER.CAPACI	
	C723	QCS21HJ-680A	68PF 50V CER.CAPACI	
	C724	QCS21HJ-680A	68PF 50V CER.CAPACI	
	C725	QCS21HJ-680A	68PF 50V CER.CAPACI	
	C726	QCS21HJ-680A	68PF 50V CER.CAPACI	
	C727	QFLB1HK-473	0.047MF 50V MYLAR CAPA	
	C728	QFLB1HK-473	0.047MF 50V MYLAR CAPA	
	C730	QETB1EM-476	47MF 25V AL E.CAPAC	
	C751	QCS22HJ-470A	47PF 500V CER.CAPACI	
	C752	QCS22HJ-470A	47PF 500V CER.CAPACI	
	C753	QCS22HJ-470A	47PF 500V CER.CAPACI	
	C754	QCS22HJ-470A	47PF 500V CER.CAPACI	
	C755	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CM
	C755	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	JM
	C756	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CM
	C756	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	JM
	C757	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CM
	C758	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CM
	C761	QCF21HP-473A	0.047MF 50V CER.CAPACI	
	C762	QCF21HP-473A	0.047MF 50V CER.CAPACI	
	C763	QCF21HP-473A	0.047MF 50V CER.CAPACI	
	C764	QCF21HP-473A	0.047MF 50V CER.CAPACI	
	C801	FMEW7501-688E	E.CAPACITO	
	C802	FMEW7501-688E	E.CAPACITO	
	C803	QCE22HP-103A	0.01MF 500V CER.CAPACI	
	C804	QCE22HP-103A	0.01MF 500V CER.CAPACI	
	C805	QCE22HP-103A	0.01MF 500V CER.CAPACI	
	C811	QCF21HP-472	4700PF 50V CER.CAPACI	
	C812	QETB1HM-107	100MF 50V E.CAPACITO	
	C816	QCF21HP-472	4700PF 50V CER.CAPACI	
	C817	QETB1EM-107	100MF 25V AL E.CAPAC	
	C818	QETB1HM-476	47MF 50V E.CAPACITO	
	C819	QETB1HM-107	100MF 50V E.CAPACITO	
	C820	QCF21HP-472	4700PF 50V CER.CAPACI	
	C821	QETB1EM-107	100MF 25V AL E.CAPAC	
	C822	QCF21HP-472	4700PF 50V CER.CAPACI	
	C823	QETB1EM-107	100MF 25V AL E.CAPAC	
	C831	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	JM
	C832	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	JM
	C901	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C902	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C903	QETB1HM-226E	22MF 50V E.CAPACITO	
	C904	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	
	C905	QCY31HK-102Z	1000PF 50V CER.CAPACI	
	C906	QETB1AM-476	47MF 10V E.CAPACITO	
	C909	QETB1CM-226	22MF 16V E.CAPACITO	
	C910	QETB1HM-225	2.2MF 50V AL E.CAPAC	

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R301	QRD161J-222	2.2K	1/6W	CARBON RES	
	R302	QRD161J-222	2.2K	1/6W	CARBON RES	
	R303	QRD161J-473	47K	1/6W	CARBON RES	
	R304	QRD161J-473	47K	1/6W	CARBON RES	
	R305	QRD161J-621	620	1/6W	CARBON RES	
	R306	QRD161J-621	620	1/6W	CARBON RES	
	R307	QRD161J-393	39K	1/6W	CARBON RES	
	R308	QRD161J-393	39K	1/6W	CARBON RES	
	R309	QRD161J-474	470K	1/6W	CARBON RES	
	R310	QRD161J-474	470K	1/6W	CARBON RES	
	R311	QRD161J-104	100K	1/6W	CARBON RES	
	R312	QRD161J-104	100K	1/6W	CARBON RES	
⚠	R313	QRD14CJ-391SX	390	1/4W	UNF.CARBON	
⚠	R314	QRD14CJ-391SX	390	1/4W	UNF.CARBON	
⚠	R321	QRZ0077-470	47	1/4W	FUSIBLE RE	
⚠	R322	QRZ0077-470	47	1/4W	FUSIBLE RE	
	R329	QRD167J-152	1.5K	1/6W	CARBON RES	
	R330	QRD167J-152	1.5K	1/6W	CARBON RES	
	R331	QRD161J-103	10K	1/6W	CARBON RES	
	R332	QRD161J-103	10K	1/6W	CARBON RES	
	R335	QRD161J-303Y	30K	1/6W	CARBON RES	
	R336	QRD161J-333	33K	1/6W	CARBON RES	
	R337	QRD161J-273	27K	1/6W	CARBON RES	
	R338	QRD161J-474	470K	1/6W	CARBON RES	
	R339	QRD161J-303Y	30K	1/6W	CARBON RES	
	R341	QRD161J-303Y	30K	1/6W	CARBON RES	
	R342	QRD167J-334	330K	1/6W	CARBON RES	
	R344	QRD167J-334	330K	1/6W	CARBON RES	
	R345	QRD161J-273	27K	1/6W	CARBON RES	
	R346	QRD161J-303Y	30K	1/6W	CARBON RES	
	R347	QRD161J-273	27K	1/6W	CARBON RES	
	R348	QRD167J-334	330K	1/6W	CARBON RES	
	R349	QRD167J-682	6.8K	1/6W	CARBON RES	
	R350	QRD167J-334	330K	1/6W	CARBON RES	
	R351	QRD167J-332	3.3K	1/6W	CARBON RES	
	R354	QRD161J-473	47K	1/6W	CARBON RES	
	R355	QRD161J-104	100K	1/6W	CARBON RES	
	R356	QRD161J-104	100K	1/6W	CARBON RES	
	R359	QRD161J-564	560K	1/6W	CARBON RES	
⚠	R361	QRZ0077-680	68	1/4W	FUSIBLE RE	
⚠	R362	QRZ0077-680	68	1/4W	FUSIBLE RE	
	R381	QRD161J-471	470	1/6W	CARBON RES	
	R382	QRD161J-471	470	1/6W	CARBON RES	
	R383	QRD161J-471	470	1/6W	CARBON RES	
	R384	QRD161J-471	470	1/6W	CARBON RES	
	R385	QRD161J-471	470	1/6W	CARBON RES	
	R386	QRD161J-471	470	1/6W	CARBON RES	
	R387	QRD161J-471	470	1/6W	CARBON RES	
	R388	QRD161J-471	470	1/6W	CARBON RES	
	R389	QRD161J-471	470	1/6W	CARBON RES	
	R390	QRD161J-471	470	1/6W	CARBON RES	
	R391	QRD161J-105	1M	1/6W	CARBON RES	
	R392	QRD161J-105	1M	1/6W	CARBON RES	
	R393	QRD161J-103	10K	1/6W	CARBON RES	
	R394	QRD161J-103	10K	1/6W	CARBON RES	
	R405	QRD161J-512	5.1K	1/6W	CARBON RES	
	R406	QRD161J-512	5.1K	1/6W	CARBON RES	
	R408	QRD161J-103	10K	1/6W	CARBON RES	
	R409	QRD161J-103	10K	1/6W	CARBON RES	
	R410	QRD161J-221	220	1/6W	CARBON RES	
	R411	QRD161J-103	10K	1/6W	CARBON RES	
	R701	QRD161J-222	2.2K	1/6W	CARBON RES	
	R702	QRD161J-222	2.2K	1/6W	CARBON RES	
	R703	QRD161J-104	100K	1/6W	CARBON RES	
	R704	QRD161J-104	100K	1/6W	CARBON RES	
	R705	QRD167J-822	8.2K	1/6W	CARBON RES	
	R706	QRD167J-822	8.2K	1/6W	CARBON RES	
	R707	QRD161J-101	100	1/6W	CARBON RES	
	R708	QRD161J-101	100	1/6W	CARBON RES	
	R711	QRD161J-202	2K	1/6W	CARBON RES	
	R712	QRD161J-202	2K	1/6W	CARBON RES	
	R713	QRD161J-202	2K	1/6W	CARBON RES	
	R714	QRD161J-202	2K	1/6W	CARBON RES	
⚠	R715	QRD14CJ-151SX	150	1/4W	UNF.CARBON	
⚠	R716	QRD14CJ-151SX	150	1/4W	UNF.CARBON	
⚠	R719	QRD12CJ-153SX	15K	1/2W	UNF.CARBON	
⚠	R720	QRD12CJ-153SX	15K	1/2W	UNF.CARBON	
	R721	QRD161J-391	390	1/6W	CARBON RES	
	R722	QRD161J-391	390	1/6W	CARBON RES	
	R723	QRD167J-152	1.5K	1/6W	CARBON RES	
	R724	QRD167J-152	1.5K	1/6W	CARBON RES	
	R727	QRD161J-391	390	1/6W	CARBON RES	
	R728	QRD161J-391	390	1/6W	CARBON RES	
⚠	R729	QRD14CJ-680SX	68	1/4W	UNF.CARBON	
⚠	R730	QRD14CJ-680SX	68	1/4W	UNF.CARBON	
⚠	R731	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
⚠	R732	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
	R733	QRD161J-133Y	13K	1/6W	CARBON RES	
	R734	QRD161J-133Y	13K	1/6W	CARBON RES	
	R735	QRD161J-561	560	1/6W	CARBON RES	
	R736	QRD161J-561	560	1/6W	CARBON RES	
	R737	QRD161J-823	82K	1/6W	CARBON RES	
	R738	QRD161J-823	82K	1/6W	CARBON RES	
	R741	QRD161J-431	430	1/6W	CARBON RES	
	R742	QRD161J-431	430	1/6W	CARBON RES	

⚠ : SAFETY PARTS

RESISTORS

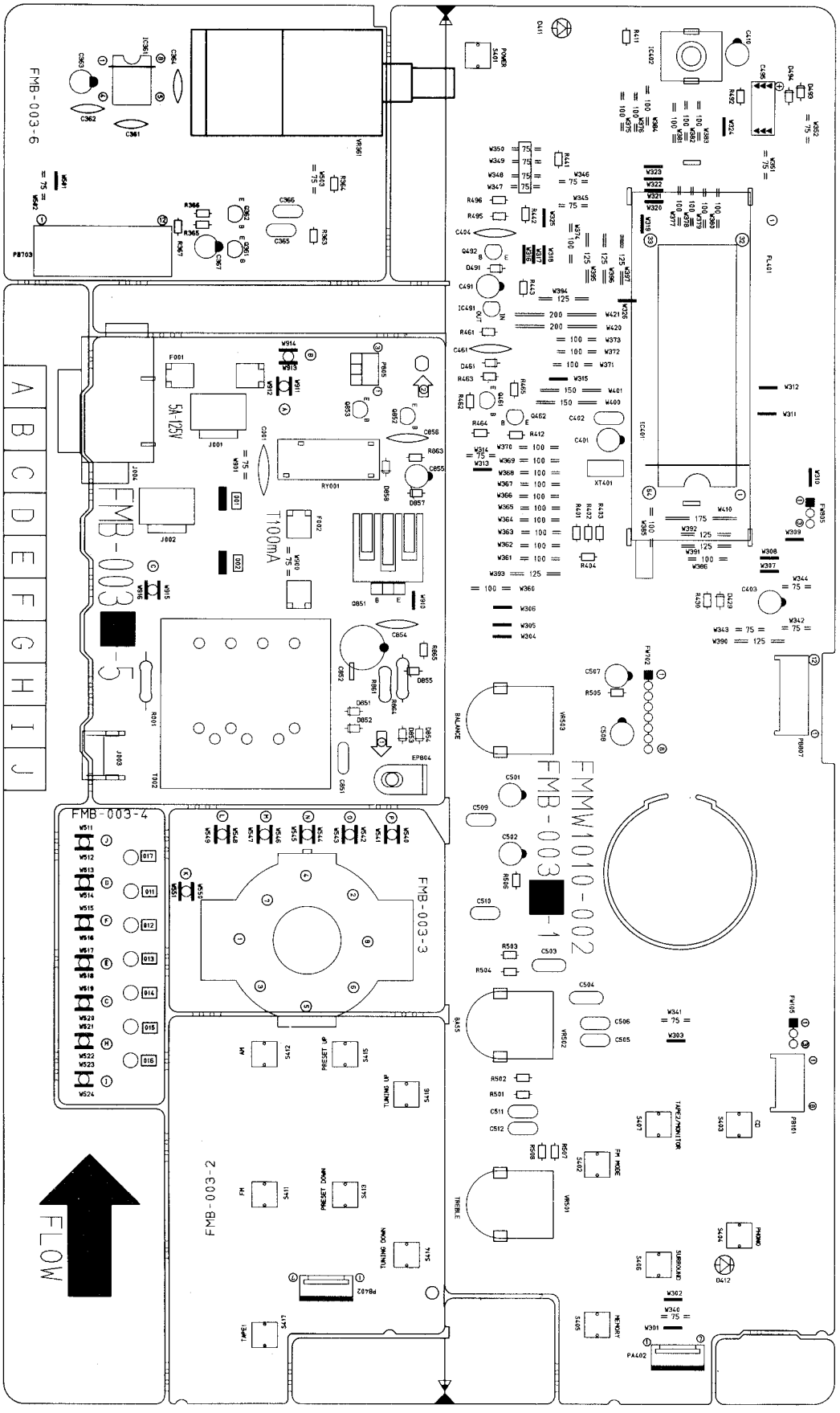
⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R745	QRD161J-102	1K	1/6W	CARBON RES	
	R746	QRD161J-102	1K	1/6W	CARBON RES	
⚠	R749	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
⚠	R750	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
	R751	QVPA601-501A	500		TRIMMER RE	
	R752	QVPA601-501A	500		TRIMMER RE	
	R755	QRD167J-152	1.5K	1/6W	CARBON RES	
	R756	QRD167J-152	1.5K	1/6W	CARBON RES	
⚠	R759	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
⚠	R760	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
⚠	R761	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
⚠	R762	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
	R767	QRD167J-560	56	1/6W	CARBON RES	
	R768	QRD167J-560	56	1/6W	CARBON RES	
	R769	QRD167J-560	56	1/6W	CARBON RES	
	R770	QRD167J-560	56	1/6W	CARBON RES	
	R771	QRD167J-360	36	1/6W	CARBON RES	
	R772	QRD167J-360	36	1/6W	CARBON RES	
	R773	QRD167J-360	36	1/6W	CARBON RES	
	R774	QRD167J-360	36	1/6W	CARBON RES	
	R775	ERT-D2WFL351S	350	1/4W	NEGATIVE T	
	R776	ERT-D2WFL351S	350	1/4W	NEGATIVE T	
	R777	ERT-D2WFL351S	350	1/4W	NEGATIVE T	
	R778	ERT-D2WFL351S	350	1/4W	NEGATIVE T	
	R781	QRD167J-562	5.6K	1/6W	CARBON RES	
⚠	R783	QRD14CJ-272S	2.7K	1/4W	UNF.CARBON	
⚠	R784	QRD14CJ-272S	2.7K	1/4W	UNF.CARBON	
⚠	R785	QRD14CJ-271S	270	1/4W	UNF.CARBON	
⚠	R786	QRD14CJ-271S	270	1/4W	UNF.CARBON	
⚠	R787	ERF032K-R22	0.22	3W	CEM.RESIST	
⚠	R788	ERF032K-R22	0.22	3W	CEM.RESIST	
⚠	R789	QRZ0077-100	10	1/4W	FUSIBLE RE	CM
⚠	R789	QRD14CJ-120SX	12	1/4W	UNF.CARBON	JM
⚠	R790	QRZ0077-100	10	1/4W	FUSIBLE RE	CM
⚠	R790	QRD14CJ-120SX	12	1/4W	UNF.CARBON	JM
⚠	R791	QRZ0077-100	10	1/4W	FUSIBLE RE	CM
⚠	R791	QRD14CJ-120SX	12	1/4W	UNF.CARBON	JM
⚠	R792	QRZ0077-100	10	1/4W	FUSIBLE RE	CM
⚠	R792	QRD14CJ-120SX	12	1/4W	UNF.CARBON	JM
⚠	R793	QRD125J-330	33	1/2W	UNF.CARBON	
⚠	R794	QRD125J-330	33	1/2W	UNF.CARBON	
⚠	R795	QRG022J-100GJ7	10	2W	OXIDE META	
⚠	R796	QRG022J-100GJ7	10	2W	OXIDE META	
⚠	R802	QRG022J-821GJ7	820	2W	OXIDE META	
⚠	R803	QRG022J-102GJ7	1K	2W	OXIDE META	
⚠	R804	QRG012J-562A	5.6K	1W	OXIDE META	
⚠	R805	QRG012J-472A	4.7K	1W	OXIDE META	
⚠	R806	QRZ0077-121X	120	1/4W	FUSIBLE RE	CM
⚠	R806	QRD14CJ-121SX	120	1/4W	UNF.CARBON	JM
⚠	R808	QRG022J-561GJ7	560	2W	OXIDE META	
⚠	R809	QRG022J-561GJ7	560	2W	OXIDE META	
⚠	R810	QRG022J-561GJ7	560	2W	OXIDE META	
⚠	R811	QRD12CJ-822S	8.2K	1/2W	NETWORK RE	
⚠	R812	QRD125J-180	18	1/2W	UNF.CARBON	
⚠	R817	QRG022J-101AM	100	2W	OXIDE META	
⚠	R820	QRG012J-822A	8.2K	1W	OXIDE META	
⚠	R821	QRX022J-2R2GJ7	2.2	2W	OXIDE META	
⚠	R822	QRX022J-2R2GJ7	2.2	2W	OXIDE META	
⚠	R830	QRG012J-102A	1K	1W	OXIDE META	
	R841	QRD161J-104	100K	1/6W	CARBON RES	
	R842	QRD161J-104	100K	1/6W	CARBON RES	
⚠	R843	QRD12CJ-2R2SX	2.2	1/2W	CARBON RES	
⚠	R844	QRD12CJ-2R2SX	2.2	1/2W	CARBON RES	
	R901	QRD161J-681	680	1/6W	CARBON RES	
	R902	QRD161J-681	680	1/6W	CARBON RES	
	R903	QRD167J-562	5.6K	1/6W	CARBON RES	
	R904	QRD167J-562	5.6K	1/6W	CARBON RES	
	R905	QRD161J-123	12K	1/6W	CARBON RES	
	R906	QRD161J-123	12K	1/6W	CARBON RES	
	R907	QRD167J-152	1.5K	1/6W	CARBON RES	
	R908	QRD167J-152	1.5K	1/6W	CARBON RES	
	R909	QRD161J-103	10K	1/6W	CARBON RES	
	R911	QRD167J-332	3.3K	1/6W	CARBON RES	
	R912	QRD161J-473	47K	1/6W	CARBON RES	
	R913	QRD161J-104	100K	1/6W	CARBON RES	
	R914	QRD161J-823	82K	1/6W	CARBON RES	
	R915	QRD161J-473	47K	1/6W	CARBON RES	
	R916	QRD161J-563	56K	1/6W	CARBON RES	
	R917	QRD161J-683	68K	1/6W	CARBON RES	
	R918	QRD161J-392	3.9K	1/6W	CARBON RES	
	R921	QRD161J-224	220K	1/6W	CARBON RES	
	R922	QRD161J-182	1.8K	1/6W	CARBON RES	
⚠	R924	QRG022J-182GJ7	1.8K	2W	OXIDE META	
	R925	QRD167J-121	120	1/6W	CARBON RES	
	R926	QRD167J-151	150	1/6W	CARBON RES	
⚠	R931	QRD14CJ-330SX	33	1/4W	UNF.CARBON	
	R935	QRD167J-562	5.6K	1/6W	CARBON RES	
	R936	QRD167J-822	8.2K	1/6W	CARBON RES	
	R937	QRD161J-103	10K	1/6W	CARBON RES	
⚠	R941	QRG012J-471A	470	1W	OXIDE META	
⚠	R942	QRG012J-471A	470	1W	OXIDE META	

⚠ : SAFETY PARTS

OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		FMMW1009-002	PRINTED BOA	
	J301	EMN00TV-423AJ2	PIN JACK	
	J302	EMN00TV-421AJ2	PIN JACK	
	J303	EMN00TV-421AJ2	PIN JACK	
	J901	QMS6022-V01	MICROPHONE	
	L331	EQL4007-220	INDUCTOR	
	L751	EQL0121-1R2J1	INDUCTOR	
	L752	EQL0121-1R2J1	INDUCTOR	
	S301	QST4101-E15	PUSH SWITCH **LOUDNESS**	
	S901	QST4241-E05J2	PUSH SWITCH **SPK 1**	
	S902	QST4241-E05J2	PUSH SWITCH **SPK 2**	
	EP801	EMZ4002-001Z	EARTH PLATE	
	EP802	EMZ4002-001Z	EARTH PLATE	
	FW103	EWR36D-25LS	FLAT WIRE A **6PIN**	
	FW801	EWR36D-45SS	FLAT WIRE A **6PIN**	
	FW903	EWR36D-35SS	FLAT WIRE A **6PIN**	
	JT001	EMV7122-004Z	CONNECT TER **4PIN**	
	JT002	EMV7122-004Z	CONNECT TER **4PIN**	
	PA703	EMV7163-012	CONNECT TER **12PIN**	
	PA807	VMC0261-012	CONNECT TER **12PIN**	
	RY901	ESK7D24-2120	RELAY	
	ST901	FMMJ4002-001	SPEAKER TER	

■ FMB-003 [A] Front,Tone Control & Power Supply PC Board Ass'y



TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q361	2SD2144S(VW)	SI.TRANSIST ROHM	
	Q362	2SD2144S(VW)	SI.TRANSIST ROHM	
	Q461	2SC1740S(R/S)	SI.TRANSIST ROHM	
	Q462	2SC1740S(R/S)	SI.TRANSIST ROHM	
	Q492	DTC114YS	DIGITAL TRA ROHM	
	Q852	2SC2235(O/Y)	SI.TRANSIST TOSHIBA	
	Q853	BA1L3Z	DIGITAL TRA NEC	

I. C. S.

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC361	LB1639-CV	I.C(DIGI-OT SANYO	
	IC401	MN171202JYY	I.C(MICRO-C MATSUSHITA	
	IC402	NJH32H380A	I.C(M) DAINICHI	
	IC491	PST600E-T	I.C(MONO-AN 0062	

DIODES

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D411	SLR-54VC50F124	L.E.D. ROHM	
	D412	SLR-34DC50F124	L.E.D.	
	D429	1SS133	SI.DIODE ROHM	
	D461	1SS133	SI.DIODE ROHM	
	D491	1SS133	SI.DIODE ROHM	
	D493	1SS133	SI.DIODE ROHM	
	D494	1SS133	SI.DIODE ROHM	
⚠	D851	1SR35-200A	SI.DIODE ROHM	
⚠	D852	1SR35-200A	SI.DIODE ROHM	
⚠	D853	1SR35-200A	SI.DIODE ROHM	
⚠	D854	1SR35-200A	SI.DIODE ROHM	
	D857	MTZ6.2JC	ZENER DIODE ROHM	
	D858	1SS133	SI.DIODE ROHM	

⚠ : SAFETY PARTS

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
⚠	C001	QCZ9019-472	4700PF C.CAPACITO	
	C361	QCY21HK-331	330PF 50V CER.CAPACI	
	C362	QCY21HK-331	330PF 50V CER.CAPACI	
	C363	QETBOJM-107	100MF 6.3V AL E.CAPAC	
	C364	QCF21HP-473A	0.047MF 50V CER.CAPACI	
	C365	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	
	C366	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	
	C367	QETB1EM-226	22MF 25V AL E.CAPAC	
	C401	QEK61AM-227ZM	220MF 10V AL E.CAPAC	
	C402	QCZ0202-155	1.5MF 25V CER.RESIST	
	C403	QEK51HM-475	4.7MF 50V AL E.CAPAC	
	C404	QCY31HK-102Z	1000PF 50V CER.CAPACI	
	C410	QEK51HM-105G	1MF 50V AL E.CAPAC	
	C491	QEK51HM-225G	2.2MF 50V AL E.CAPAC	
	C495	QEADOHZ-479A	47000MF E.CAPACITO	
	C501	QEK51HM-105G	1MF 50V AL E.CAPAC	
	C502	QEK51HM-105G	1MF 50V AL E.CAPAC	
	C503	QFLB1HJ-823	0.082MF 50V MYLAR CAPA	
	C504	QFLB1HJ-823	0.082MF 50V MYLAR CAPA	
	C505	QFLB1HJ-153	0.015MF 50V MYLAR CAPA	
	C506	QFLB1HJ-153	0.015MF 50V MYLAR CAPA	
	C507	QETB1HM-105	1MF 50V AL E.CAPAC	
	C508	QETB1HM-105	1MF 50V AL E.CAPAC	
	C509	QFLB1HJ-332	3300PF 50V MYLAR CAPA	
	C510	QFLB1HJ-332	3300PF 50V MYLAR CAPA	
	C511	QFLB1HJ-183	0.018MF 50V MYLAR CAPA	
	C512	QFLB1HJ-183	0.018MF 50V MYLAR CAPA	
	C851	QFN82AJ-472	4700PF 100V MYLAR CAPA	
	C852	QETB1EM-227	220MF 25V AL E.CAPAC	
	C855	QETB1CM-476	47MF 16V AL E.CAPAC	
	C856	QCF21HP-472	4700PF 50V CER.CAPACI	

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
⚠	R001	QRC128K-275EM	2.7M 1/2W COMPOSITIO	
	R363	QRD167J-682	6.8K 1/6W CARBON RES	
	R364	QRD167J-682	6.8K 1/6W CARBON RES	
	R365	QRD161J-222	2.2K 1/6W CARBON RES	
	R366	QRD161J-222	2.2K 1/6W CARBON RES	
	R367	QRD161J-202	2K 1/6W CARBON RES	
	R401	QRD161J-104	100K 1/6W CARBON RES	
	R402	QRD161J-104	100K 1/6W CARBON RES	
	R403	QRD161J-104	100K 1/6W CARBON RES	
	R404	QRD161J-104	100K 1/6W CARBON RES	
	R411	QRD161J-221	220 1/6W CARBON RES	
	R412	QRD161J-221	220 1/6W CARBON RES	
	R430	QRD161J-220	22 1/6W CARBON RES	
	R441	QRD161J-473	47K 1/6W CARBON RES	
	R443	QRD161J-473	47K 1/6W CARBON RES	
	R461	QRD161J-103	10K 1/6W CARBON RES	
	R462	QRD167J-223	22K 1/6W CARBON RES	
	R463	QRD161J-473	47K 1/6W CARBON RES	
	R464	QRD161J-471	470 1/6W CARBON RES	
	R465	QRD161J-103	10K 1/6W CARBON RES	
	R492	QRD161J-331	330 1/6W CARBON RES	
	R495	QRD161J-473	47K 1/6W CARBON RES	
	R496	QRD161J-471	470 1/6W CARBON RES	
	R501	QRD161J-203	20K 1/6W CARBON RES	
	R502	QRD161J-203	20K 1/6W CARBON RES	
	R503	QRD161J-362	3.6K 1/6W CARBON RES	
	R504	QRD161J-362	3.6K 1/6W CARBON RES	
	R505	QRD161J-472	4.7K 1/6W CARBON RES	
	R506	QRD161J-472	4.7K 1/6W CARBON RES	
	R507	QRD161J-821	820 1/6W CARBON RES	
	R508	QRD161J-821	820 1/6W CARBON RES	
⚠	R861	QRD14CJ-100SX	10 1/4W UNF.CARBON	
⚠	R863	QRV144F-8200	1/4W CONST.META	
	VR361	QVDB71B-E15BJ5	100K VARIABLE R	
	VR501	QVDB92C-E15CJ3	100K VARIABLE R	
	VR502	QVDB92C-E15CJ3	100K VARIABLE R	
	VR503	QVDA92W-E15EJ3	100K VARIABLE R	

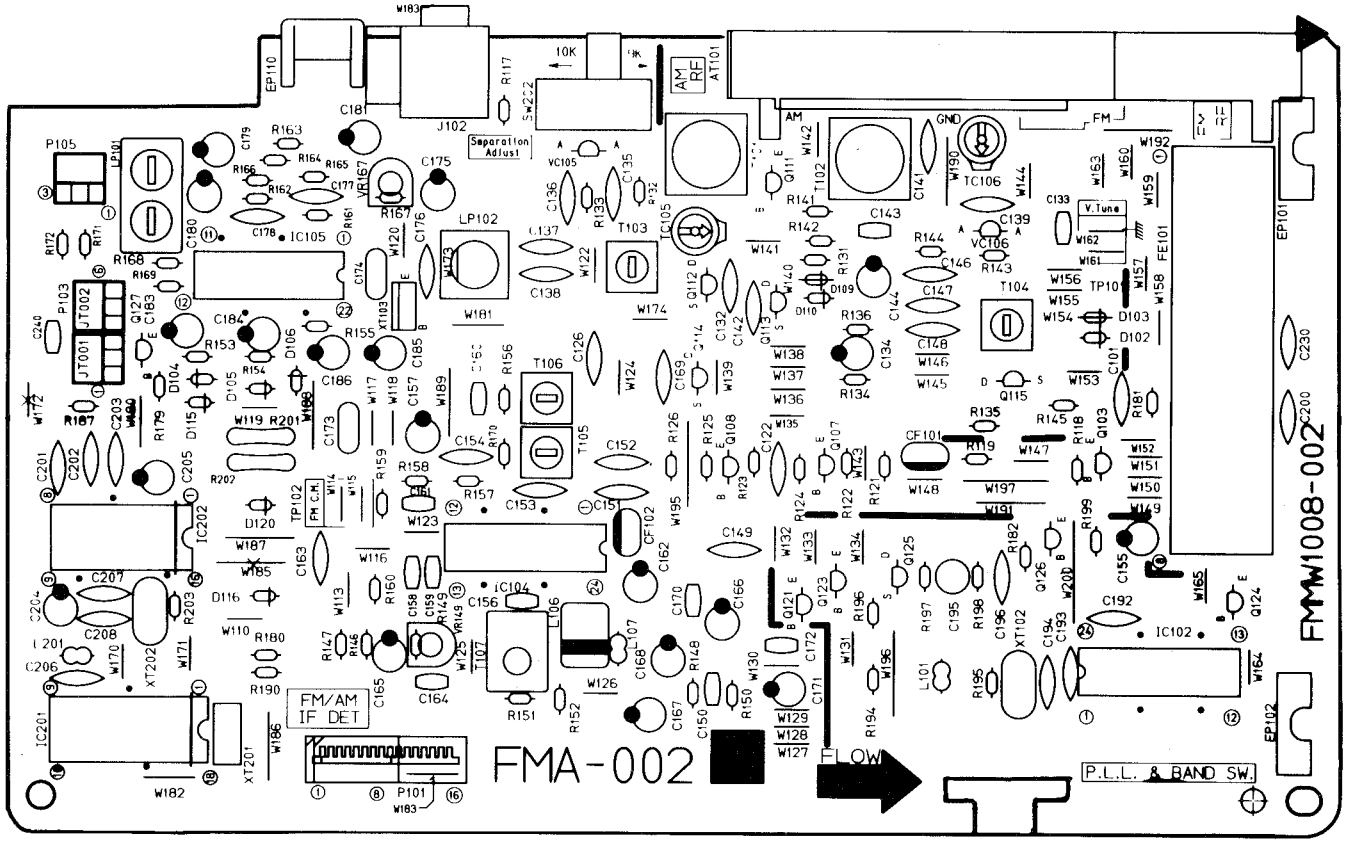
⚠ : SAFETY PARTS

OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		FMMW1010-002	PRINTED BOA	
		EMZ4001-001	TAB	
		VMZ0087-001Z	FUSE HOLDER	
		QWE881-26RR	VINYL WIRE	
		QWE883-28RR	VINYL WIRE	
	J003	E70225-001	EARTH PLATE	
⚠	J004	QMCA002-E02S	AC OUTLET	
	P805	EMV7122-103	CONNECT TER 3PIN	
	S401	ESP0001-023M	TACT SWITCH POWER	
	S402	ESP0001-023M	TACT SWITCH FM MODE	
	S403	ESP0001-023M	TACT SWITCH CD	
	S404	ESP0001-023M	TACT SWITCH PHONO	
	S405	ESP0001-023M	TACT SWITCH MEMORY	
	S406	ESP0001-023M	TACT SWITCH SURROUND	
	S407	ESP0001-023M	TACT SWITCH TAPE 2/MONTOR	
	S411	ESP0001-023M	TACT SWITCH FM	
	S412	ESP0001-023M	TACT SWITCH AM	
	S413	ESP0001-023M	TACT SWITCH PRESET DOWN	
	S414	ESP0001-023M	TACT SWITCH TUNING DOWN	
	S415	ESP0001-023M	TACT SWITCH PRESET UP	
	S416	ESP0001-023M	TACT SWITCH TUNING UP	
	S417	ESP0001-023M	TACT SWITCH TAPE 1	
⚠	T002	ETP1000-41JA	POWER TRASN	
	EP804	EMZ4002-001Z	EARTH PLATE	
	FH001	E308270-001	FL HOLDER	
	FH002	E308270-001	FL HOLDER	
	FL401	ELU0001-143	FLUORESCENT	
	FS001	E3400-444	FELT SPACER	
	FS002	E3400-444	FELT SPACER	
	FW702	EWR38D-30LS	FLAT WIRE A 8PIN	
	FW805	EWR33D-30LS	FLAT WIRE A 3PIN	
	PA402	VMC0261-R07	CONNECT TER 7PIN	
	PB101	VMC0261-R08	CONNECT TER 8PIN	
	PB402	VMC0261-R07	CONNECT TER 7PIN	
	PB703	EMV5163-012R	CONNECT TER 12PIN	
	PB807	VMC0261-R12	CONNECT TER 12PIN	
⚠	RY001	ESK1D12-118J1	RELAY	
	XT401	ECX0060-000EM	CERAMIC RES	

⚠ : SAFETY PARTS

■ FMA-002 Ⓐ Tuner PC Board Assy



TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q103	2SC461	SI.TRANSIST	
	Q107	2SC535	SI.TRANSIST HITACHI	
	Q108	2SC461	SI.TRANSIST	
	Q112	2SK301(P,Q)	F.E.T. MATSUSHITA	
	Q123	BN1A4P	DIGITAL TRA NEC	
	Q124	BN1A4P	DIGITAL TRA NEC	
	Q125	2SK301(P,Q)	F.E.T. MATSUSHITA	
	Q126	2SC458(C,D)	SI.TRANSIST HITACHI	
	Q127	BA1L4M	DIGITAL TRA NEC	

I. C. S.

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC102	LC7218	I.C(DIGI-MO	
	IC104	LA1266A	I.C(MONO-AN SANYO	
	IC105	LA3401	I.C(MONO-AN SANYO	

DIODES

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D104	1SS133	SI.DIODE ROHM	
	D105	1SS133	SI.DIODE ROHM	
	D106	1SS133	SI.DIODE ROHM	
	D115	1SS133	SI.DIODE ROHM	
	D116	1SS133	SI.DIODE ROHM	
	D120	1SS133	SI.DIODE ROHM	
	VC105	SVC342(L)	VARI-CAPA D SANYO	

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C101	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C122	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C126	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C132	QCS31HJ-561Z	560PF 50V CER.CAPACI	
	C133	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C134	QETB1EM-106	10MF 25V AL E.CAPAC	
	C135	QCC21EM-223	0.022MF 25V CER.CAPACI	
	C136	QCT25CH-180Z	18PF 50V CER.CAPACI	
	C137	QCT26CH-221	220PF 50V CER.CAPACI	
	C138	QCT26CH-241	240PF 50V CER.CAPACI	
	C149	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C150	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C151	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C152	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C153	QCC21EM-223	0.022MF 25V CER.CAPACI	
	C154	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C155	QETB1EM-226	22MF 25V AL E.CAPAC	
	C156	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C157	QETB1HM-474	0.47MF 50V ELECTRO	
	C158	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C159	QCBB1HK-101Y	100PF 50V CER.CAPACI	
	C160	QCBB1HK-221Y	220PF 50V CER.CAPACI	
	C161	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C162	QETB1EM-106	10MF 25V AL E.CAPAC	
	C163	QCY31HK-332Z	3300PF 50V CER.CAPACI	
	C164	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C165	QETB1HM-474	0.47MF 50V ELECTRO	
	C166	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C167	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C168	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C169	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C170	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C171	QETB1EM-106	10MF 25V AL E.CAPAC	
	C172	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C173	QFLB1HK-223	0.022MF 50V MYLAR CAPA	
	C174	QFLB1HK-473	0.047MF 50V MYLAR CAPA	
	C175	QETB1EM-106	10MF 25V AL E.CAPAC	
	C176	QCY31HK-102Z	1000PF 50V CER.CAPACI	
	C177	QCS31HJ-561Z	560PF 50V CER.CAPACI	
	C178	QCS31HJ-561Z	560PF 50V CER.CAPACI	
	C179	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C180	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C181	QETB1EM-106	10MF 25V AL E.CAPAC	
	C183	QETB1HM-105	1MF 50V AL E.CAPAC	
	C184	QETB1HM-105	1MF 50V AL E.CAPAC	

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C185	QETB1HM-225	2.2MF	50V	AL E.CAPAC	
	C186	QETB1HM-474	0.47MF	50V	ELECTRO	
	C192	QCC21EM-473	0.047MF	25V	CER.CAPACI	
	C193	QCS21HJ-180A	18PF	50V	CER.CAPACI	
	C194	QCS21HJ-180A	18PF	50V	CER.CAPACI	
	C195	QEN51HM-474	0.47MF	50V	NP E.CAPAC	
	C196	QCY31HK-102Z	1000PF	50V	CER.CAPACI	
	C206	QCC21EM-104	0.1MF	25V	CER.CAPACI	
	C230	QCF21HP-103A	0.01MF	50V	CER.CAPACI	

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R117	QRD161J-100	10	1/6W	CARBON RES	
	R118	QRD167J-332	3.3K	1/6W	CARBON RES	
	R119	QRD161J-221	220	1/6W	CARBON RES	
	R121	QRD161J-391	390	1/6W	CARBON RES	
	R122	QRD167J-272	2.7K	1/6W	CARBON RES	
	R123	QRD161J-102	1K	1/6W	CARBON RES	
	R124	QRD161J-681	680	1/6W	CARBON RES	
	R125	QRD167J-332	3.3K	1/6W	CARBON RES	
	R126	QRD161J-221	220	1/6W	CARBON RES	
	R131	QRD161J-331	330	1/6W	CARBON RES	
	R132	QRD161J-103	10K	1/6W	CARBON RES	
	R133	QRD161J-473	47K	1/6W	CARBON RES	
	R135	QRD161J-470	47	1/6W	CARBON RES	
	R136	QRD161J-103	10K	1/6W	CARBON RES	
	R146	QRD167J-560	56	1/6W	CARBON RES	
	R147	QRD161J-103	10K	1/6W	CARBON RES	
	R148	QRD161J-103	10K	1/6W	CARBON RES	
	R149	QRD161J-273	27K	1/6W	CARBON RES	
	R150	QRD161J-103	10K	1/6W	CARBON RES	
	R151	QRD161J-224	220K	1/6W	CARBON RES	
	R152	QRD161J-103	10K	1/6W	CARBON RES	
	R153	QRD161J-103	10K	1/6W	CARBON RES	
	R154	QRD161J-103	10K	1/6W	CARBON RES	
	R155	QRD167J-562	5.6K	1/6W	CARBON RES	
	R157	QRD161J-103	10K	1/6W	CARBON RES	
	R158	QRD161J-183	18K	1/6W	CARBON RES	
	R159	QRD161J-561	560	1/6W	CARBON RES	
	R160	QRD161J-123	12K	1/6W	CARBON RES	
	R161	QRD161J-124	120K	1/6W	CARBON RES	
	R162	QRD161J-124	120K	1/6W	CARBON RES	
	R163	QRD167J-332	3.3K	1/6W	CARBON RES	
	R164	QRD167J-332	3.3K	1/6W	CARBON RES	
	R165	QRD161J-184	180K	1/6W	CARBON RES	
	R166	QRD161J-184	180K	1/6W	CARBON RES	
	R167	QRD161J-473	47K	1/6W	CARBON RES	
	R168	QRD161J-103	10K	1/6W	CARBON RES	
	R169	QRD161J-103	10K	1/6W	CARBON RES	
	R170	QRD167J-822	8.2K	1/6W	CARBON RES	
	R171	QRD167J-682	6.8K	1/6W	CARBON RES	
	R172	QRD167J-682	6.8K	1/6W	CARBON RES	

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R179	QRD167J-562	5.6K	1/6W	CARBON RES	
	R180	QRD161J-472	4.7K	1/6W	CARBON RES	
	R181	QRD161J-222	2.2K	1/6W	CARBON RES	
	R182	QRD161J-181	180	1/6W	CARBON RES	
	R187	QRD161J-101	100	1/6W	CARBON RES	
	R190	QRD161J-472	4.7K	1/6W	CARBON RES	
	R194	QRD161J-472	4.7K	1/6W	CARBON RES	
	R195	QRD161J-473	47K	1/6W	CARBON RES	
	R196	QRD161J-103	10K	1/6W	CARBON RES	
	R197	QRD161J-222	2.2K	1/6W	CARBON RES	
	R198	QRD167J-332	3.3K	1/6W	CARBON RES	
	R199	QRD161J-472	4.7K	1/6W	CARBON RES	
⚠	R201	QRD14CJ-680SX	68	1/4W	UNF.CARBON	
⚠	R202	QRD14CJ-470SX	47	1/4W	UNF.CARBON	

⚠ : SAFETY PARTS

OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		FMMW1008-002A	PRINTED BOA	
	J102	QMS3501-021	PIN JACK	
	L101	EQL4007-1R0	INDUCTOR	
	L107	EQL4007-101	INDUCTOR	
	P101	VMC0261-008	CONNECT TER 8PIN	
	T101	EQR1111-014	RF COIL	
	T103	EQR1207-015	RF COIL	
	T105	EQT2140-017	I.F.TRANSFO	
	T107	ECB1560-010	CERAMIC FIL	
	AT101	EMB41YV-401K	ANTENNA TER	
	CF101	ECB2123-006R	CERAMIC FIL	
	CF102	ECB2123-006R	CERAMIC FIL	
	EP101	E65396-003	EARTH PLATE	
	EP102	E65396-003	EARTH PLATE	
	EP110	E70225-001	EARTH PLATE	
	FE101	EAF2203-004	FRONT END	
	JT001	EMV7122-103	CONNECT TER 3PIN	
	JT002	EMV7122-103	CONNECT TER 3PIN	
	LP101	EQF0101-002	LOWPASS FIL	
	TC105	ENZ1003-006	TRIMMER CAP	
	XT102	ECX0007-200KWJ1	CRYSTAL	
	XT103	ECX0000-456KR	CERAMIC RES	

Accessories List

Accessories List

Symbol No. M 2 M M

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	1	E30580-2209A	INSTRUCTION BOOK	1		C
		E30580-2187A	INSTRUCTION BOOK	1		J
	2	RM-SR317U	WIRE-LESS REMOTE CONTROL	1		
	3	E03614-004	FM FEEDER ANTENNA	1		
	4	EQB4001-015	LOOP ANTENNA	1		
	5	R6PRPA-2STSA	BATTERY	1		
	6	E300196-033B	POLY BAG	1		
	-	BT-20025M	WARRANTY CARD	1		C
	-	BT20071B	SERVICE NETWORK	1		C
	-	BT-20044G	SAFETY SHEET	1		J
	-	BT-51006-1	REGISTER CARD	1		J

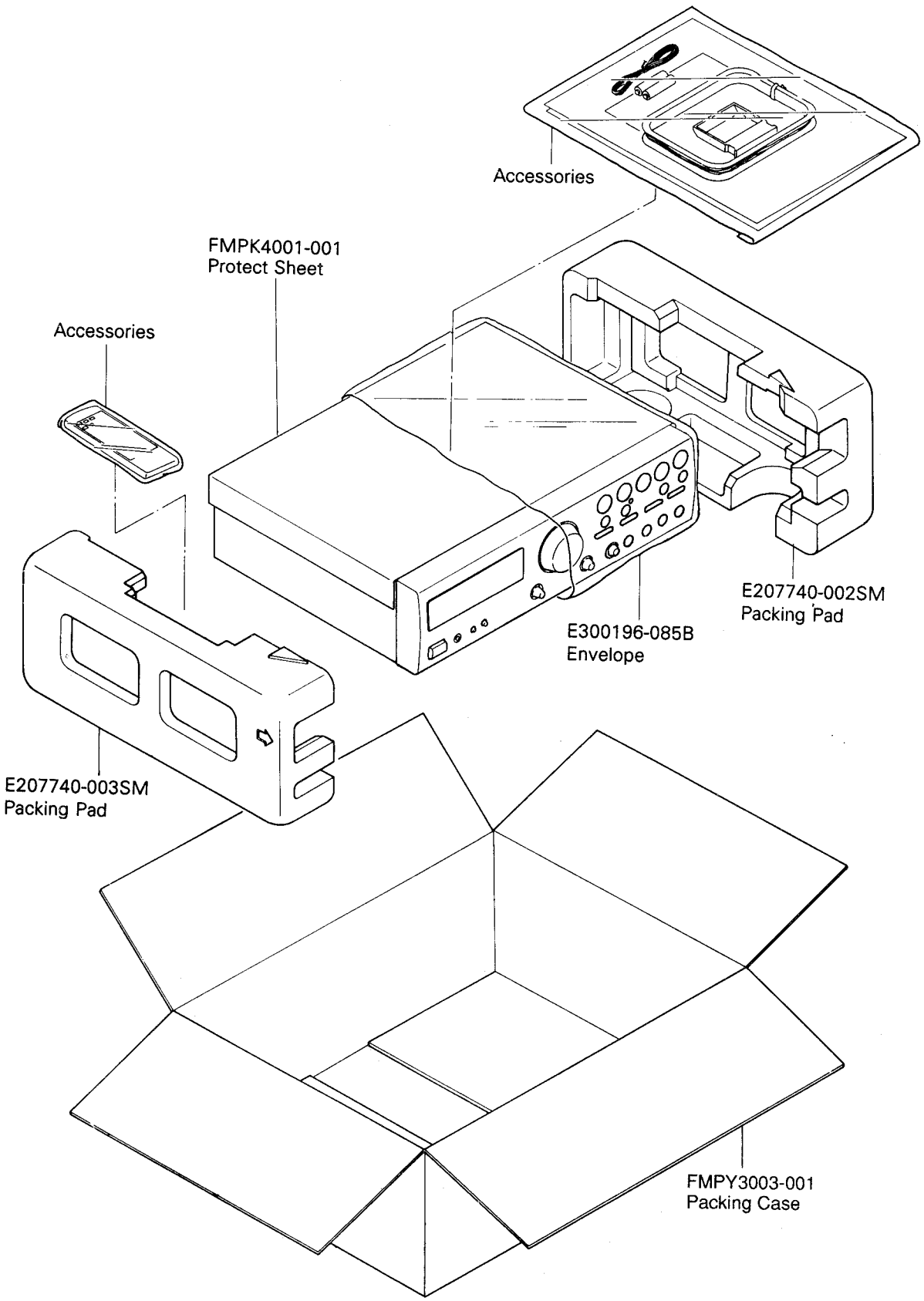
The Marks for Designated Areas

J .... the U.S.A. C ... Canada

No mark indicates all area.

Packing Materials and Part Numbers

Symbol No. M 3 M M



JVC

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